

Science and Mathematics Education Centre

**The Blending of Affective Domain Standards and Cognitive Domain
Standards of Mathematics with Fifth Grade At-Risk Students**

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of
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Declaration

To the best of my knowledge and belief this thesis contains no material previously published by any other person except where due acknowledgement has been made. This thesis contains no material which has been accepted for the award of any other degree or diploma in any university.

A handwritten signature in blue ink, appearing to read 'Yusuf Han', is written in a cursive style.

13 August 2013

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“I’ve learned that people will forget what you said,
people will forget what you did, but people will never
forget how you made them feel.” Maya Angelou

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ABSTRACT

This study was prompted by the American School Counselors Association's call for school counselors to become proactive in the evolution of school counseling promoting leadership in student achievement. Subsequently, this research study investigated what would happen when a school counselor sought conceptual change in at-risk students. It consisted of blending affective standards of a comprehensive school counseling program with the academic standards of fifth grade mathematics. Further, the learning environment utilized the small counseling group format.

In seeking conceptual change, four sub-questions guided the research by asking: (1) Will students understand the relationship between knowledge gained in mathematics in school with daily life application; e.g., algebraic application? (2) Will students utilize and understand the use of measurement; e.g., time management skills? (3) Will students demonstrate an improvement in their organizational skills; e.g. goal setting, study skills? (4) Will students recognize how personal attitudes and feelings affect behavior; e.g., self-regulation?

The study sample included 9 fifth grade participants who had been recognized by the Public School Board profiles (2009-2010 school year) as students who needed assistance delineated on the "Student Assistance" Profile and the "Highway to Success" Profile. These participants attended an urban elementary school that served 837 students in the school year of 2010-2011 from the surrounding community. It was decided that the participants needed to become aware of and to be more in touch with their affective side to learning as it related to their attitude, behavior, and commitment to improving academic success.

This study used the case study as the research design. The data garnered was largely qualitative gathered from participating students, interviews, and observations from their mathematics teachers, parents, and the school counselor. A majority of the instruments utilized to achieve data were school counselor made surveys and questionnaires. Led by the sub-questions, the instruments sought the

participants' personal-social and emotional attributes through inner self investigation and group participation. As well, the instruments were used to promote time management, learning of test-taking strategies, study skills, organization skills, and stress reduction. The academic context was improving students' mathematics skills in measurement.

Academic improvement was noted using students' mathematics grades as indicated on their interim reports and end of grading period reports. The findings indicated conceptual change was made as seen when all nine participants' final Mathematical grade improved from a failing grade ("D" or "F") to an average grade of "C" or better. Resulting self-reflections indicated positive gains such as one participant expressing that he learned how to set goals and make plans to reach those goals. As well, he expressed that he knew that he had improved in completing and submitting his homework, asking questions and giving answers. Another participant shared from his Life Management Scale of a week where he was mostly good or great at his weekly performance in managing his social time, stress level, physical activity, mood and energy. Finally, a positive outcome was expressed as an important improvement for all of the participants who had been retained and whose mathematics grades were in decline did not note change until they participated in this research study.

This research study was plagued with many limitations. The researcher recommends that future studies involving personal-social and emotional needs seek more of an alignment of assessments that can produce tangible results for comparisons. This would also include the availability of a control group for comparison. Limitations in generalizing capabilities of other students within the same grade level, age and ability level, and the specificity of the school counseling method of delivery and content will also need to be addressed. It is hoped that qualitative data acquired within this research study will add to the warehouses of information sought by school counselors and other educators in meeting the needs of at-risk students in their efforts to improve student achievement.

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CHAPTER 1

Introduction

“The professional school counselor provides consultation in defining and identifying at-risk students. The goal is to identify and intervene before they move through a continuum of self-destructive behavior. The school counselor provides responsive programs, including short-term individual, group, family and crisis counseling; provides programs for individual planning to meet academic, educational and career counseling needs; provides curriculum programs to strengthen personal/interpersonal skills (choice, self-acceptance, feelings, beliefs and behaviors, problem-solving, decision-making).” (American School Counselors Association, 2007, p.22)

1.1 Aim of the Study

This chapter outlines and discusses the rationale for implementing a research study where the role of a school counselor includes the blending of academic and affective standards in seeking student achievement of fifth grade at-risk students. It will attempt to delineate the significance of this study in making a change in the role of the school counselor moving from a traditional guidance program to one of a comprehensive approach.

As well, presented are detailed descriptions of the challenges that were important in the implementation of the research study, including the economic challenge that were important in the implementation of the research study, including the economic challenges and blending of instructional and counseling roles.

1.2 Rationale for the Study

In 2003, the American School Counseling Association (ASCA) began to encourage school counselors to take a leadership role and help to define their role from the student services model to one that provides a more substantial

contribution to the school's focus on student achievement. This continued driving force not only prompted the evolution of the school counselor's role but sought research-based interventions that could demonstrate accountability in student achievement utilizing the ASCA adopted national standards (Campbell & Dahir, 1997) and the created national model of 2005 (Schellenberg, 2008). Consequently, now is the opportune moment to increase accountability and place emphasis on achievement outcomes to become more closely tied to the educational processes that affect these academic outcomes (Webb, Brigman & Campbell, 2005).

Being a new school counselor and one who wished to contribute to the professionalism of the field of study, this author choose to respond to the call of the professional organization of American School Counselor Association (ASCA). ASCA was aware of the transforming world of education where there was a growing concern for accountability. The role of the school counselor was in need of change in demonstrating the school counseling field's professional contribution towards student achievement. This would require action research and the documentation of the contributions.

In an attempt to make a contribution it was important to select a specific area of student achievement to study and a particular audience of students to be included in the research. The author noticed that the population in the school of the study that there was a population of students who were being targeted by the school to improve fifth-grade mathematics scores as documented by the state's comprehensive assessment test. These students who became participants were part of the exceptional student education program (ESE) also known as special education (SPED). Their areas of academic deficiency were largely the medical diagnosed area of Attention Deficient Disorder (ADD) and the possession of characteristics that fit within the category of at-risk students.

The characteristics of the at-risk category included deficits in attendance, retention, ESE placement, grades, race, behavior severity, and state assessment scores. Both the characteristics of at-risk and the medical diagnosis of ADD were key areas that could benefit from the affective components of the comprehensive school counseling program. The comprehensive program provided the venue of the

small counseling group format and the use of the of academic and behavior standards which were more responsive, planning and curriculum focused. This placed the school counselor in an opportune position to address and contribute to improving the cognitive needs of the participants as well.

In performing this research study, the school counselor enabled the illumination of the transforming role of the school counselor with prominent interventions focused on student achievement providing more definitive examples that the role was also changing. The traditional role was more administrative or system supportive with reactive strategies rather than proactive strategies. Therefore the rationale of this action research became twofold that led to the problem statement that sought to find out what would happen when a school counselor blended cognitive standards with affective standards in fifth grade at-risk students.

Bloom's Taxonomy (Bloom, 1956) delineated cognitive, affective and psychomotor as the three types of categories or domains of behaviors used by students to impact their learning. Cognitive and affective domains were the focus in this research. The cognitive domain reflected thinking and knowledge (Bloom, 1956) while the affective domain recognized the manner in which students addressed their learning emotionally, such as feelings, values, appreciation, enthusiasms, motivations, and attitudes (Krathwohl, Bloom, and Masia, 1973). Basically, cognitive and affective standards, in conjunction, addressed the needs of the participants in their abilities to access their education both present and in the future through specific subject domains. The Education Trust (2009) stipulates this as they defined academic standards as "public statements regarding what all students should know and be able to do in academic subjects: mathematics, science, English, history, geography, arts, and second languages. These standards are carefully constructed in order to adequately prepare students for productive work and lifelong learning. Solid standards help students develop skills and increase their knowledge."

This research study attempted to make conceptual change in the at-risk students by changing their perception and attitude towards the academic subject of

mathematics. In understanding conceptual change, Smith (2009) suggested that conceptual change occurs when there is change in mental units and how these changes are articulated within a larger conceptual system.

The variables affective domain standards, cognitive domain standards and conceptual change of this research are more thoroughly discussed in Chapter 2 (See Tables 2.1, 2.2).

The study examined the feasibility of focusing on the affective domain as it affects the academic achievement (cognitive domain) of at-risk students, particularly in the core academic subject of mathematics. Essentially, the school counselor acted as a catalyst for conceptual change believing that affective learning outcomes such as student attitudinal learning, self-motivation and value are linked to cognitive goals (Miller, 2005). Expressed in the sub-questions of this research (See 1.7), conceptual change was the goal in promoting understanding and utilizing knowledge, improving organizational skills, and students becoming cognizant of how their affect contributed to their learning.

Standardizing the learning domains yielded objectives for academic development, career development and personal/social development. This process inevitably promoted the school counseling program to one with definitive directions that:

- Focuses on improving academic achievement and eliminating the achievement gap of students of color, poor students or underachieving students,
- Operates with a mission that is an amalgamation of missions from the national, to the state down to the school district,
- Aligns student learning objectives that are measurable with ASCA National Standards, state curriculum frameworks and district standards,
- Are data-driven and accountable for student outcomes.

This study began with a primary focus on being a professional school counselor reacting to the call for school counselors to not only becoming pro-active catalysts in the evolution of school counseling but becoming leaders in promoting student achievement. It was believed that student achievement could be recognized and accomplished by blending student learning standards of counseling and academics. Subsequently, the standards of the Comprehensive Student Services Program were aligned with the recommendations of the national model of the American School Counselors Association (ASCA, 2005) and those of the statewide academic standards for Mathematics and Science. The purpose for blending of the standards was to maximize at-risk students' academic potential and performance. This attempt used a counseling format of small group counseling focusing on student learning objectives and demonstrated that there can be an alignment of affective and cognitive objectives in compliance with national standards and the state curriculum framework.

The school counseling program can contribute to successful student progression (Florida School Counseling Association, 2010, p.1) and the professional school counselor can be central to the improvement of student learning outcomes. This study used a qualitative approach to provide evidence that a counselor can implement a proactive intervention focused on student achievement as part of her role as a professional school counselor. This role involves advocating for student achievement and seeing students as lifelong learners capable of academic successes, being able to develop the necessary personal-social skills and being armed with skills to be successful in the world of work which is congruent with the national, state and district standards for counseling.

Eleven at-risk fifth grade students actively took part in this research study that looked at what happened when a professional school counselor interfused academic standards typical of the public school core academic subject of mathematics with the social-emotional standards of a state approved comprehensive student services program (counseling curriculum) within the setting of small group counseling.

The participants were able to glean what they have learned in school can be applicable in their daily life, understand how time management is mathematical,

being organized can be essential in possessing good study skills, and appreciate social-emotional skills of appropriate attitude and behavior as an important part of being within a school setting.

1.3 Significance

At-risk students are those students who have characteristics that may impede their achievement and ultimately lead to a decrease in graduation rates from high school. They are expected to make the same academic achievement gains on the same level as their average or above average counterparts without any consideration of the affective domain. The National Center for Education Statistics (NCES) (2002) notes that the dropout rate of students labeled as “at-risk” is twice as high as their achieving peers. Early indicators can be identifiable in the elementary years of schooling. Sege (2012) has found that chronic absenteeism in the early grades inhibits academic progress; hence it is imperative that students consistently attend school starting in kindergarten through upper grades. Further, the study noted that reading at grade-level by at least the end of third grade is important to reduce the chances of being “at-risk”. Speece and Cooper (1990) also found that measures of intelligence, achievement, and social behavior noticed as early as first-grade can be at-risk indicators that can affect the graduation rate. Hence, early intervention at the early grades is essential (Roth, McCaul, & Barnes, 1993). However, these potentially at-risk students are expected to make the same academic achievement gains on the same level as their average or above average counterparts without any consideration of the affective domain. Here-in lies the problem and the significance of this study.

Significantly, this proactive intervention provided an opportunity for the at-risk students to learn goal setting, time management, test-taking strategies, study skills, organization skills, test anxiety reduction and learning strategies as they all relate to real life applications. These students were to become cognizant of how their attitudes, behavior, and self-concept affect their ability to achieve.

1.4 The Changing Role of the School Counselor

School counselors, referred to as “guidance counselors” in the past, help every student improve academic achievement, personal and social development, and career planning (ASCA, 2008). The role of the school counselor has been redefined from a focus of traditional guidance to the modernization of comprehensive student development (Gysbers, 1990) which began in the late 1800’s (Beesley, 2004; Gysbers & Henderson, 2001; Gysbers & Henderson, 1997; Paisley & Borders, 1995) in response to the Industrial Revolution (Schimmel, 2008). The traditional school counselor’s role focused on six major services: orientation, assessment, information, counseling, placement and follow-up, in preparing students for the world of work (Gysbers, 2001; Schimmel, 2008).

School counseling is normally seen as an ancillary program and not a crucial component for improving student achievement. To change this perception requires taking an active role in observing, collecting evidential data and documenting the fluidity of the possibility of such a programmatic service change in the role of the school counselor. Shillingford and Lambie (2010) point out that making a programmatic service delivery change, such as the conceptual change attempted in this study, has shown to be challenging for school counselors. Clemens, Milsom, and Cashwell (2009) recognize that the ASCA National Model (2005) emphasizes that school counselors should not work in isolation but in cooperation with the many stakeholders (i.e., students, teachers, and parents) involved in implementing programs that meet and support the needs of all students. Further research shows that this challenge has not been taken up, largely due to a lack of administrative support, role inconsistencies, and fear of failure and risk taking (American Counseling Association, 2010).

Amatea and Clark (2005), Dollarhide, Smith and Lemberger (2007) and Ponec and Brock (2000) opine that administrators (principals) have considerable influence on shaping the role of school counselors. As the head of a school, Zalaquett (2005), as well, notes that the school principal’s support of the professional school counselor’s role is essential to the success of the school

counselor and the development, application, and maintenance of the counseling program (Professional School Counseling, 2009).

Shillingford and Lambie (2010) note that inconsistencies in the school counselor's role may include clerical, disciplinary duties, and course scheduling as well as being quasi-administrators, assistants in discipline issues, and implementing programs that are primarily responsive or reactive (Clemens, Milsom, et al, 2009). According to Scarborough (2005), practices or interventions supporting school achievement should include counseling, consulting, coordinating, and curriculum delivery. Mason (2010) supports such findings and notes that many administrators lack knowledge and understanding of the role of the school counselor and how their work impacts upon student outcomes. Many researchers repeatedly suggest that the school counselor's role continues to evolve to successfully address student achievement. In this evolution, and in an effort to promote the conceptual shift from guidance to school counseling, the title of a person certified in counseling, coordinating, consulting, curriculum developing and delivery skill has moved from "guidance counselor" to "school counselor" [Florida Department of Education (FDOE), 2010]. Table 1.1, for example, shows a comparative view of the role of the traditional guidance counselor to that of a 21st century school counselor in the role utilizing a comprehensive student development program.

Table 1.1 Changing from a Guidance Program to a Comprehensive Program

Traditional Guidance	Comprehensive Student Development
Isolation	Collaboration
Reactive	Proactive
Crisis	Prevention and crisis
Adjustment	Development
Deficiencies	Strengths
Limited Scope	Comprehensive Scope
Detached from curriculum	Integrated into curriculum
Process oriented	Outcomes oriented
Special student population	All students
Career information	Career planning and development

Unplanned activities	Planned daily activities
Guidance staff	All school personnel
Accountability weak	Accountability strong

Following the lead of the ASCA, many states have adopted the change from traditional counseling to a more comprehensive role that includes student development as described by curriculum standards. In 2005, ASCA compared the traditional role of the school counselor to what the perceived role of the “today’s” (21st century) school counselor should be in a comprehensive program. It can be stated that traditional and today’s school counseling has always focused on student outcomes, addressing student needs, and to sway whatever interferences that taints the student’s ability to succeed. The basic change has been in the “how” these needs are met and how the role of the school counselor has been clarified.

Kaffenberger, Murphy, and Bemak (2006) noted that the profession’s lack of clarity concerning the role and function of the school counselor has had the effect of marginalizing school counselors. However, recent data has shown that the changing of the role has led to student achievement for all students (FDOE, 2010).

In essence, the preferred change of the role of the school counselor is to make a paradigm shift by viewing the school counseling program as the incorporation of programs that are developmental and comprehensive, focus on individual competencies rather than just on deficiencies, and build on a team approach mandating the articulation link of developmental levels K-12 (Gysbers, 1990). However, limitations in making such changes or reversions can occur when school years are faced with nationwide economic crises. Such an example is the recent economic crisis which caused the cutting of school counselor positions and forced schools to decrease or eliminate other services that were once available to students through school counseling services (Griffin & Farris, 2010).

1.5 Subsequent Challenges Faced by the Researcher

The crisis arose when the federal government failed to extend emergency fiscal aid to states and school districts failed to enact needed revenue increases

(Oliff & Leachman, 2011). Further reactions came when states balanced their budgets solely upon spending cuts which meant either considering the options of scaling back the educational services provided by the state or raising more revenue to cover the gap, or to do both. Oliff and Leachman (2011) noted that in at least 37 states, elementary and high schools received less state funding than they did the previous year. The funding of at least 30 state schools, including those in the state of Florida, fell below the 2008 school year level. In the long run, this reduction of funding caused significant consequences through job losses in the public- and private- sectors and the potential for a reduction in student achievement as well as economic growth.

The reversion to the traditional role of the school counselor and the importance of the comprehensive student development model and "when the budget gets tight, that's where the cuts are made" is reflective of school counseling as "not as a big of a priority" to student achievement suggests Jill Cook, assistant director at ASCA (Adams, 2010, p.1). Further, Cook opines that there is a reason for the gap in ASCA's recommendations for a paradigm shift in the role of the school counselor. The reality is due to "a combination of financially strapped schools and lack of mandates for counselors. Rather than just helping those with discipline problems or those headed to college, as was the case 20 years ago, counselors today are expected to work with all students on academic, career, and social issues" (Adams, 2010, p.1).

The economic crisis prompted the state to enact legislation on class size laws (Florida; Amendment 8), and massive restructuring of instructional positions including those of the school counselors who now are labeled as instructional staff. The Orlando Sentinel (June 27, 2010) reported:

This summer, Central Florida school administrators face a task many have dreaded for years: getting their schools in compliance with the final, strict phase of the state's class-size law.

To do that means adding hundreds more teaching jobs to district rosters by the start of the new school year in August. With no new state money for the task, some districts will pay for more teachers with a host of less-than-ideal options.

Those include cutting custodial staff, eliminating electives, creating new "combo" classes and, if needed, even busing students from schools where classes have reached size limits to roomier ones. Some districts also are asking teachers to take on more classes for extra pay — reducing the need for new hires — and encouraging students to sign up for "virtual" classes that keep them out of an actual classroom for a period or two.

The state will do its official count in October during what is dubbed "FTE [full time equivalent] week." Districts that are not in compliance by then could lose state funding, which would then be redistributed to districts that are in compliance."

The Florida Department of Education explained that these required changes challenged school districts to consider many ways to meet the requirement of providing enough teachers without hiring additional new ones. Further, beginning with the school year 2010-2011 the maximum number of students in each core class (mathematics, reading, science, and social studies) would be 18 students in prekindergarten through grade 3, 22 students in grades 4 through 8, and 25 students in grades 9 through 12. This decision to utilize all certified teachers to meet the state mandates posed a further challenge for the schools already concerned with the school counselor's role inconsistencies, high stress levels for classroom teachers to seek higher standardized test scores and a lack of administrative support.

1.6 Blending the School Counselor and Co-Teacher Roles

The school district of this study followed the option for schools to look from within and utilize all instructional teaching certified staff. This decision included using the school counselor as a co-teacher. This role switching required daily co-teaching within core subjects of language arts/reading and/or mathematics in classrooms following the new set class size or overflows classrooms. Table 1.2

provides a display of the state-mandated time limits for core subjects of reading and mathematics for levels K-5.

Table 1.2 State's Mandated Time Limits

Reading	90 minutes of consecutive, uninterrupted, daily instruction in language arts/reading
Mathematics	60 minutes of consecutive, uninterrupted, daily instruction in mathematics

The challenges for the school counselor were fulfilling the daily duties of a school counselor, complying with the duties as a co-teacher and being effective in both roles. Co-teaching required daily 300 minutes of a 360 minutes day which provided limited opportunity for school counseling proactive interventions. The lack of understanding of the role of the school counselor was evident in that the yearly employee performance evaluation remained reflective of the duties delineated for the school counselor not those of a co-teacher.

Other obstacles that were faced during the research study of gathering the students or participants and implementing the small group counseling format included the following:

1. Difficulty in coordinating the time available for the school counselor with that of the students during their content of foreign language classes because those academic classes are the only classes that were allowed interrupted instruction time.
2. Other duties were necessary to be fulfilled by the school counselor during the two hours left in the school day. Examples of not all inclusive nor exclusive duties were largely administrative and clerical;
 - Recognizing, scheduling, contacting and testing potential gifted kindergarten students,
 - Recognizing, scheduling, contacting parents, individual and small group counseling of students flagged for poor attendance and excessive tardiness,
 - Investigating accusations of bullying and other disciplinary actions
 - Providing large classroom lessons for grades two through five in the bullying and harassment curriculum,

- Developing and presenting character education school wide, and
- Liaison activities included meeting with student advocates, parent-teacher conferences, and parent-teacher-administration conferences.

1.7 Research Question and Sub-questions

The main research question is: *Will the outcome of blending of affective domain standards with cognitive domain standards of mathematics solicit conceptual change in at-risk fifth grade students?* and is broken down into four researchable questions.

1. Will students understand the relationship between knowledge gained in mathematics in school with daily life application?
2. Will students utilize and understand the use of measurement?
3. Will students demonstrate an improvement in their organizational skills?
4. Will students recognize how personal attitudes and feelings affect their behavior?

For the school counselor, nationally there has been a move away from an only focus on mental health concerns to having the focus on academic, career, and personal/social development of students (Foster, Young, & Hermann, 2005). The American School Counselor Association (2005), after years of developing efforts prompted by national school reform initiatives of the 1990's, provided a program model for the school counselor. The resulting model yielded national standards that defined the role through curriculum standards necessary to improve student achievement. States and local districts adapted and evolved the school counseling curriculum to guided focus on a standard-driven generation. School Counselors began boosting their professionalism by accepting the call for leadership and joined the movement by providing evidence with data supporting school counselor-led interventions that focused on student achievement and student outcomes.

This research study was an effort to contribute to the movement and the request of ASCA by providing evidence of a research driven-intervention. This effort

prompted the question of what would happen when a school counselor blends the standards of a comprehensive school counseling program with the fifth grade academic standards established by the state department of education for mathematics. Would the outcome of this blending of affective domain standards with cognitive domain standards of mathematics solicit conceptual change in selected at-risk students?

This blending of standards focused on the curricula of an urban school-based set of standards of the Comprehensive Student Services Program PK-Adult (Board Rule 6Gx13- 5D-1.091) aligned with the recommendations of the national model of the American School Counselors Association (ASCA, 2004) and the Florida Department of Education (FDOE, 2012) academic standards for Mathematics and Science.

This research study was designed to not only collaborate the academic standards of the core subject of Mathematics and those of a comprehensive developmental program but exemplified the use of the school counseling format of small group counseling to help with student achievement in the specific student population of at-risk students.

The blending of these standards was to maximize the at-risk students' academic potential and performance. Specific focus was on the academic domains of algebra (daily life application), measurement (time management skills), and data analysis (organization skills) with the affective domains of academic achievement (study skills, goal setting), personal-social (self-regulation, attitude, behavior), and career awareness (school to work importance).

It is important to point out that this effort was filled with challenges of role inconsistencies, administrative support and economic intrusions. The compelling change was switching grade level students from at-risk fourth graders to at-risk fifth graders.

The at-risk students selected for the designated academic core subject of Mathematics were based on the annual fifth grade statewide comprehensive achievement test and the school improvement plan. The statewide comprehensive achievement test was designed to test primary grade levels in Reading and

Language Arts, the intermediate grades level in Writing for fourth grade and Mathematics for fifth grade.

1.8 Summary

This chapter outlined and described the rationale and significance of the research study by presenting the question of what would happen when a school counselor attempts to blend the standards from both the cognitive and affective domain. Also presented were the challenges that were faced in implementing the study. The challenges included an attempt to change the perception of the role of the school counselor from a traditional guidance program to a comprehensive program in seeking student achievement in all subjects. The recent economic crisis posed a challenge for the federal government, disabling it to provide needed revenue of fiscal assistance to states. Subsequently, this economic situation affected the school districts which caused a restructuring of the instructional personnel that inevitably affected the role of the school counselor. The changing role increased the difficulty of effectively carrying out the research study.

1.9 Description of the Thesis to Follow

The remainder of the thesis provides the reader with four additional chapters.

- Chapter 2 provides a literature review of related knowledge and research studies important to this research study that questions the blending of cognitive and academic standards to improve academic achievement in the core subject of mathematics. The format and educational setting described that of a small counseling group as suggested by the American School Counseling Association (ASCA, 2005) in a comprehensive counseling program.

- Chapter 3 delineates the methodology and experimental design of the research study. This research study was a qualitative study implemented within an urban elementary school with fifth grade at-risk students. Included are full and partial instrumentation samples along with documentation sharing the school counselor's observations and interpretation of work done with the participants.
- Chapter 4 outlines the findings of the implementation of the research study as seeking conceptual change within the students participating in the study. Provided, for example, are samples of the participants' self-assessments and plans for self-improvements.
- Chapter 5 shares overall the conclusions and discussions of the presented work, such as heeding the call of the national association for school counselors to research and document works being done by school counselors. It also provides the limitations, boundaries, and recommendations associated with this study.

Finally, this thesis includes an extensive bibliography, an appendix of complete figures and tables, and samples of instruments used to assess and/or document the information gathered from the participants. Some of the included instruments also provides information received from parents/guardians and teachers of the participants.

As well, at this point it would be important to note that throughout the chapters, the participants within the research study will be referred to as "participant" or "student" due to colloquialism that occurs frequently within the educational setting.

CHAPTER 2

Review of the Literature

We know a great deal about effective math instruction for students with disabilities, especially students who have LD. There have been five meta-analyses on the subject, reviewing a total of 183 research studies. The studies combined in these meta-analyses involved students with a variety of disabilities—most notably, LD, but other disabilities as well, including mild mental retardation, AD/HD, behavioral disorders, and students with significant cognitive disabilities. The meta-analyses found strong evidence of instructional approaches that appear to help students with disabilities improve their math achievement. (<http://nichy.org/resach/ee/math>, 2012)

2.1 Introduction

This chapter is a review of the literature specific to this research study of the blending of affective and cognitive standards for conceptual change in at-risk fifth graders. The literature looks at purposeful attempts of the field of school counseling to transform the role of the school counselor and to account for effective contributions to student academic achievement.

The literature reviewed defines conceptual change and the methodological strategies of blending such attempts with affective standards. It provides literature that accounts for the impact of personal-social skills such as self-managing, self-monitoring and self-regulating on academic deficits in the subject of mathematics. Further, the literature review provides information on the strategy of making conceptual change through the use of the educational environment of small group counseling.

2.2 Purpose

Kaminsky (2010) pointed out that the use of a small group counseling educational setting justifies that learning is best done through relationships built in this setting. Participants were given the opportunity to reflect on their understanding of the reason why they come to school daily and insight into how important this would become in their adult life. It was reflective of the adult world where people must be social and work together in contributing to our society.

There is a wealth of research focused on at-risk students from which a small collection has been provided in this chapter along with information sensitive to the difficulties these students have with mathematics. Kasten and Howe (1988) found that at risk students or potential school dropouts are those students who are learning substantially less mathematics than they should and are entering the work-force unable to use mathematics effectively.

Important to the characteristics of the participating at-risk students are their emotional traits or affective responses. Recent research indicates that small group counseling may be an effective intervention. A focus of elements essential to the small counseling group intervention includes awareness of learning modalities central to participating students and their reduction of test anxiety, building organizational skills and self-management skills.

Overall, this research study contributes to the transitioning role of the school counselor using data or research based intervention to assist in student achievement through a view of the school counselor and accountability, literature reflective of at-risk students and mathematics, the blending of cognitive and affective standards, and the use of the small counseling group format in seeking student achievement.

2.3 School Counselors and Accountability

More than half of counselors (55 percent) say significant changes are needed in schools, and 9 percent say a complete overhaul is necessary. Nearly every counselor (99 percent) agrees that they should exercise leadership in advocating for students' access to rigorous academic preparation, as well as for other college and career readiness counseling, even if others in the school do not see counselors in this leadership role.

(http://www.civicerprises.net/MediaLibrary/Docs/counseling_at_a_crossroads.pdf)

The role of professional school counselors is transforming. The Transforming School Counseling Initiative (Education Trust, 2009) has prompted a new vision of school counselors as assertive advocates and social activists (House & Hayes, 2002; House & Martin, 1998; Martin, 2002). Professional school counselors are currently in a key position to collaboratively lead school transformation at all levels of education (Curry & DeVoss, 2009).

In recent years, the National Model of ASCA (2005) has called for school counselors to take a leadership role in seeking and providing research-based interventions that can effectively contribute to improving student achievement. In addition, the national model of ASCA sought counselors to demonstrate leadership, advocacy, and act as researchers, consequently creating a deeper and systemic day-to-day role of the professional school counselor. This role is essential because at the present time, national, state, regional, and local stakeholders are calling for more accountability in the education realm. Bridgeland and Bruce (2011), in their article "An open letter to the American people", pointed out that albeit school counselors are highly valued professionals, they are amongst the least strategically deployed causing them to lack accountability in achieving student success. School counselors have essentially been left out of the education reform movement.

Schimmel (2008) found the role of the school counselor to be in search of an identity (Bridgeland & Bruce, 2011). It has become imperative that school counselors meet the challenge, strengthen their roles and better leverage their resources such as seeking a change in how students are viewed in the education system. A starting place would be to remind those within the education system that students are human beings and education should focus on the whole student. Low, Lomax, Jackson and Nelson (2004) suggest emphasizing affective or emotional learning as much as academic or cognitive learning. Academic testing as a way to achieve accountability is only a narrow attempt in closing the gaps in student achievement.

Students have many sides to their behavior that are not addressed academically. Low et al. (2004) clearly delineate that academic disciplines in education and psychology refer to these performance levels as being cognitive (academic), behavioral (actions), and affective (emotional) domains. There needs to be a blending of these domains to address the whole student seeking to achieve his or her highest potential in meeting the educational mandates and to raise student achievement. In other words, we should not leave out one domain to achieve another.

This research study was an attempt to blend the cognitive with the affective domains and steadfastly focuses on efforts to improve student achievement. As well, this research should be a contribution to the continuous need to evaluate the degree to which interventions are supported by research and, in particular, those done by counselors as researchers (Carey, 2004).

Carey's (2004) view of the uniqueness of the counseling service of the small counseling group format adds to the documentation of the budding accountability of counselors as researchers. In turn, this may yield the outcomes that provide fidelity of the implementation of the intervention because it collaboratively fulfills the goals of students' academic achievement with improved social behavior that is designed to equip and empower students for transitioning through school, work and life.

The No Child Left Behind (NCLB, 2001) has been the genesis for measuring student achievement and holding educators accountable for making learning gains (Rosenberg, Westling, & McLeskey, 2008). The NCLB raised the bar on accountability for everyone, including school counselors, and is based on the premise that every child can learn and that public school systems must educate ALL children, not just a portion. A primary focus of accountability is to close the achievement gap between minority and non-minority students. To achieve its goals, NCLB installed four common-sense actions and principles: holding schools accountable for results; giving states and districts flexibility in spending federal funds; use of scientific research to guide classroom practice; and to involve parents (Goal 8, FDOE, 2010).

The American School Counselors Association (ASCA, 2003) addressed this initiative by calling for empirically-based interventions that would document standardized measures of student achievement. Whiston and Sexton (1998), along with other researchers, recognized the limited contribution of reliable and valid research related to school counseling services. Brigman and Campbell (2003) pointed out that past research which has focused on outcomes has involved school psychologists or mental health services personnel and not the school counselor.

2.4 At-Risk Students

Every year, across the country, a dangerously high percentage of students — disproportionately poor and minority — disappear from the educational pipeline before graduating from high school. Nationally, only about 68% of all students who enter 9th grade will graduate "on time" with regular diplomas in 12th grade. While the graduation rate for white students is 75%, only approximately half of Black, Latino, and Native American students earn regular diplomas alongside their classmates. Graduation rates are even lower for Black, Latino and Native American males. Yet, because of misleading and inaccurate reporting of dropout and graduation rates, the public remains largely unaware of this educational and civil rights crisis. (The Civil Rights Project, University of Harvard, March 24, 2005)

From: Confronting the Graduating Rate Crisis in California

<http://www.irvine.org/assests/pdf/pubs/iq/CaliforniaReport.pdf>

The National Center for Education Statistics (NCES,1992) provides specific characteristics for students at-risk for educational failure either by students failing to learn while in school or by dropping out of school because they were from low-socioeconomic backgrounds, from minority groups, or whose parents are not directly involved in their education. The NCES provided statistics in 2002 showing that the dropout rate of at-risk students is twice as high as their achieving peers (Kayler & Sherman, 2009).

Furthermore, the U.S. Department of Education data from 2005-2006 show that students with disabilities who do not complete high school had emotional disturbance (44.9%), speech or language impairments (22.7%), specific learning disabilities (25.1%), intellectual disabilities (22.3%), and 23.4% had other health impairments (APA, 2012, p. 6).

Behaviors and personal actions are largely the leading proponents why students become recognized as potential dropouts or at-risk candidates. The ASCA (School Counselor, 2004) consider absenteeism, performing below academic potential or participating in activities that may be harmful to self and/or others such as substance abuse, threats and intimidation and physical violence to be self-destructive with “devastating and lifelong implications” that will place students at risk. The American Psychological Association (2012) lists some of the predictors of drop outs to be a delay in reading skills, grade retention, absenteeism, and school disengagement. Further, these behaviors arise from students who are experiencing personal and social concerns including low self-esteem, family and relationship problems, unresolved grief, trauma, involvement with drugs or alcohol, neglect or abuse.

The No Child Left Behind Act (NCLB; U. S. Department of Education, 2004) brought forth a more visible representation of the students fitting the characteristics as it made federal funding contingent on academic achievement. The at-risk students were the students who were not having academic success and nor were

they receiving equity in educational attainment and school quality; this would form an achievement gap (Education Trust, 1999, 2001).

The Education Trust (2001) also revealed in their new analysis that the achievement gaps in many states would shrink dramatically – and in some cases disappear entirely – if poor and minority students in those states reached the same levels of academic achievement as do their counterparts in top-performing "frontier states" (p. 1). This statement demands a closer look; the American Psychological Association (APA, 2012, p.1) reports that approximately 42% of Hispanic students, 43% of African American, and 46% of American Indian students will not graduate on time with a regular diploma, compared to 17% of Asian students and 22% of white students. They also pointed out that Balfanz (2007) found that poor schools (coined as "dropout factories") are estimated to produce 81% of Native American, 73% of African American, 66% of Latino, and 34% of White dropouts.

Kasten and Howe (2005) further suggest that similar variables contribute to students falling into the at-risk groups in mathematics. Minority students are focused on cultural deficiency for they are not able to see themselves reflected in the curricula. Female students see mathematics "for boys only". Some students develop an anxiety which is an important role for the school counselor to address due to the affective component; the stress of anxieties begins to interfere with students studying, learning, and their use of mathematics.

McMilan, Reed and Bishop (1992) outlined those strengths imperative to be provided by schools for at-risk students. At-risk students need to feel empowered to be stakeholders in their school life through early intervention which would help to avoid school failure, build their self-esteem, and encourage them to be decision-makers and to benefit from a climate that creates a sense of belonging. Dryfoos (1991), as the authors pointed out, recommended within this climate to consider respectful relationships including mental and physical health and school counseling. This position can be reinforced by the findings of Zins, Weissberg, Wang and Walberg (2004) opining that school programs which focus on social, emotional, and academic learning from kindergarten through high school have been found to improve school attitudes, behavior, and academic performance (APA, 2012).

2.5 Self-Management, Self-Monitoring, Self-Regulation

Helping students plan and prepare for their future is an ongoing process. As most school counselors know, it involves building students' future aspirations, sharing information, helping them make plans and decisions and assisting them with the many steps involved in reaching their future goals. (Savitz-Romer and Bufford, 2012)

Without systematic and direct instruction of organizational skills and how to use them, at-risk students will struggle and are at a higher risk of not performing well. They will achieve poor grades and increase their misperceptions of their academic performance when compared to their successful peers. Another major difficulty for them, particularly those with behavioral and learning disabilities, may make it difficult for them to manage and regulate their performance (Anderson, Munk, Young, Conley, & Caldarella, 2008).

Where students with disabilities are not instructed on how to become self-managers, King-Sears (2006) agrees that they will likely not become self-managers. However, when these students do receive systematic intervention, they will learn to become self-managers, come to rely more on themselves, hereby becoming better decision makers empowered to control and improve themselves.

Poydras and Reinheimer (2011, p.4) found that teachers assume students will pick up organizational skills by observation or by being advised. However, often this is an incorrect perception that results in lack of student organizational skills. Students' organizational deficits include needing emphasis placed on devices that separate academic subjects; reminders for returning homework, classwork, school supplies; ways to keep track of time-line requirements and bringing to school only necessary materials (Anderson, et al, 2008). Self-regulated learning and metacognitive strategies associated with self-regulation (self-observation, self-reaction, and self-evaluation) leads to better organizational skills (Cahill, 2008). Students need an adult to monitor their successful and unsuccessful attempts to develop habits that will help them to reach goals. Students need cognitive processes

and strategies for successful mathematical problem solving which includes hypothesizing or setting a goal and making a plan to solve the problem and checking to make sure the plan was appropriate and the answer is correct (Montague, 2005).

An affective intervention can improve mathematical performance utilizing strategies that emphasize meta-cognitive strategies or thought processes involved in solving problems as suggested by O'Neal-Hixson (2009). It would be imperative that students are taught to be self-monitoring or how to use self-regulating strategies. Students would self-check themselves as they solve a problem by asking themselves questions and self-instructing by telling themselves as what to do next (self-talk). Savitz-Romer and Buford (2012) point out that in helping students to become self-monitors or to self-regulate, it is important to be cognizant that the skill varies across developmental stages. Among elementary students, for example, it is important to focus on impulse control as opposed to adolescents where self-regulation engages in meta-cognition.

Students will need to become self-regulators. Kasten and Howe (1988) hold the view that "there are two groups of students that are learning substantially less mathematics than they should (p. 1)". The first group, typical or usual, consists of students who are potential dropouts and are underachievers. These students in this group are the focus of this research study. The second group, the nominal mathematics students, comprises those students who can function onward through high school and college but are faced with having inadequate abilities which interferes and, possibly, limits their educational and life choices. For example, a student who wants to become a psychiatrist but fears the mathematics components will select a less demanding course of choice.

2.6 Mathematics and At-Risk Students

We are beginning to learn the warning signs of dropping out -- and they are evident well before a student starts high school. As early as first grade, teacher ratings of student academic and social performance are associated with graduation. Students who are not

*reading on grade level by third grade are less likely to graduate than their peers. And sixth-graders likelihood of graduation can be determined by the ABCs: **A**ttending school less than 80 percent of the time, receiving an unsatisfactory **B**ehavior grade/demonstrating mild but sustained misbehavior, or **C**ourse failure (particularly in math or English/reading). Students demonstrating at least one of these traits have only a 10 percent to 20 percent chance of graduating on time. Less than one of every four students graduates within one extra year of on-time graduation. (<http://www.edutopia.org/blog/droupout-prevention-middles-school-ressources-anne-obrien>)*

Montague and Van Garderen (2007) concur that there is a greater risk for intermediate or upper elementary students to become at-risk of school dropout if they are poor mathematics performers. Most specifically, if the students have learning and behavioral disorders, their academic performance will be notably poorer than non-disabled peers.

Affective domains of motivation, attitudes, perceptions and values of a comprehensive schooling counseling curriculum can be effective in applying Kasten and Howe's (1988) suggested interventions to help the potential dropout students: (a) early identification and intervention programs for students with learning problems, (b) frequent monitoring of students with possible problems, (c) stress real life application of mathematics, (d) stress goals and objectives, and (e) stress the effective use of homework.

2.7 Standards Blending

Standards are those statements that provide a description of what students should know and be able to do at the highest level of expectation. Standards specify the level or rate of performance the student will achieve against a particular competency or set of indicators (Florida Department of Education, 2010).

Standards blending are the creative alignment of the standards of the academic curriculum with those of the student counseling curriculum. Kayler and Sherman (2009) suggest affective standards of study skills, goal setting, time management, and self-management skills can easily work in tandem with academic standards to improve student achievement. These standards of a counseling program can be aligned by adapting the counseling session to address each of the standards noted by the National Council of Teachers of Mathematics (NCTM, 1989, 2000).

Schnellenberg and Grothaus (2009) heralded that the research supported the curriculum existing within the frameworks of the NCLB (2001). The Transforming School Counseling Initiative (Education Trust, 1997), and the ASCA National Model (2005) provide just those necessary standards that can be blended. Schellenberg and Grothaus (2009) also conclude that using standards blending can be both a system support as well as a responsive mechanism. The focus is aligning the standards of the cognitive and affective domains as a “student-centered” strategy (Hines & Fields, 2004; Schellenberg, 2007, 2008) with respect to improving student achievement.

The National Council of Teachers of Mathematics in their Principles and Standards for School Mathematics of 2000 ascertain that mathematics curriculum standards should produce a society of citizens that has both the capability to think and reason mathematically and have a useful base of those mathematical knowledge and skills needed in any walk of life (NCTM, 2013). However, to achieve this, the students must make connections demonstrating an understanding of the utility of mathematics by maximizing real-world problem solving situations (NCTM Standards, 1989). As with the standard of connection, it is important that students experience all of the standards outlined by the NCTM of problem solving, communication, reasoning and proof, and representations.

The selected fifth grade mathematics standards were taken from the Florida Department of Education (FLDOE) Sunshine State Standards (2010) with a focus on mathematics practices, algebra, and geometry and how such would be applicable to all of the NCTM principles and standards, i.e., for problem solving in real-life and real world situations. In 2008, the Legislature required the State Board of Education

to review the Sunshine State Standards and replaced them with the Next Generation Sunshine State Standards (2010 Florida Statue 1003.41). The cognitive standards sample of the Common Core subject domains for grade level 5 can be seen in the Table 2.1.

Table 2.1 Sample of Common Core Standards Contents

Standards	Students will be able to:
Algebraic thinking	<ul style="list-style-type: none"> • Write and interpret numerical expressions • Analyze patterns and relationships.
Measurement and Data	<ul style="list-style-type: none"> • Represent and interpret data
Geometry	<ul style="list-style-type: none"> • Graph points on the coordinate plane to solve real-world and mathematical problems. • Classify two-dimensional figures into categories based on their properties.
Mathematical Practices	<ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. • Reason abstractly and quantitatively. • Construct viable arguments and critique the reasoning of others. • Model with mathematics.

In 1995, the ASCA National Standards for Students' Framework, National Consortium for State Guidance Leadership, and the National Framework for State Programs of Guidance and Counseling provided the structure and delivery of a comprehensive counseling and guidance program for the state of Florida's School and Counseling Framework: A Comprehensive Student Development Program Model (FLDOE, 2010).

In 1998, the UCLA Center for Mental Health in Schools published a report to encourage school boards to increase their focus on addressing barriers to learning in schools throughout the United States' schools (FLDOE, 2010, p.3). The affective

standards in the domains of academic, personal-social and career development guided the focus on the established standards to address the needs of at-risk students in an effort to improve student achievement as a way to eliminate these barriers (See Table 2.2).

Table 2.2 Sample of Affective Standards of a Counseling Program

Academic Development	<ul style="list-style-type: none"> • Students will acquire the attitudes, knowledge and skills that contribute to effective learning in school and across the life span. • Improve academic self-concept; articulate feelings of competence and confidence as learners, identify attitudes and behaviors that lead to successful learning • Acquire skills for improving learning; apply time-management and task-management skills, demonstrate how effort and persistence positively affect learning, use communications skills to know when and how to ask for help when needed, apply knowledge and learning styles to positively influence school performance
Personal-Social Development	<ul style="list-style-type: none"> • Students will acquire the knowledge, attitudes and interpersonal skills to help them understand and respect self and others. • Acquire self-knowledge; learn the goal-setting process, identify and express feelings, demonstrate cooperative behavior in groups, identify personal strengths and assets. • Acquire interpersonal skills; use effective communication skills, know that communication involves speaking, listening, and nonverbal behavior, respect alternative points of view, recognize that everyone has rights and responsibilities. • Self-knowledge application; identify alternative ways of achieving goals, identify long and short-term goals; develop and action plan to set realistic goals.
Career Development	<ul style="list-style-type: none"> • Students will understand the relationship between personal qualities, education, training and the world of work. • Apply Skills to Achieve Career Goals; learn to work cooperatively with peers and adults.

Source: FLDOE, 2005, pp. 20-21

The blending of cognitive and affective standards (problem solving, reasoning and proof, connections and representations) in mathematics (NTCM, 1989, 2000) and those of a comprehensive counseling program (ASCA, 2005) would emphasize the following:

- Set goals and objectives (short and long term goals specific to each student);
- Build knowledge and developing skills found in the coordinated curriculum;
- Stress real-life use of Mathematics (Algebraic application – skills that can be used in daily living);
- Promote effective use of homework;
- Frequent monitoring techniques to keep students on track.

2.8 Small Group Counseling

When people come into a group and interact freely with other group members, they tend to recreate those difficulties that brought them to counseling in the first place. Under the skilled direction of the group facilitators, the group is able to give support, offer alternatives, or gently confront an individual. In this way, the difficulty is resolved, alternative behaviors are learned, and the individual develops new social skills or ways of relating to people. Group counseling has been found to be a very effective means of treatment and, in some cases, the best form of treatment for a particular individual or a particular type of concern. (Career and Counseling Development, 2013)

Accountability, as expected by our 21st century stakeholders, has for the most part, eluded the professional school counselor who has traditionally focused on a support role, addressing individual issues, taken on administrative duties, and has been removed from the instructional arena of schools (Stone & Dahir, 2004). But there are inroads to promoting a better school counselor's visibility and providing a more active role in the academic achievement of students. Consequently, it is important to employ innovative strategies to achieve optimal educational

productivity (Dorman, 2002). Brigman and Campbell (2003) consider the small-group format as being the “most promising intervention” in encouraging and sustaining student academic achievement and positive attitudes.

Given the opportunity to adhere to the recommendation of the Association of School Counselors Association (ASCA, 2005), the utilization of a comprehensive school counseling program and the fact that the school counselor has been trained to identify and alleviate the cognitive, emotional, social, and behavioral barriers to student success (Galasi & Akos, 2004; Hines & Fields, 2004; Schellenberg & Grothaus, 2009), measurement of the school counselor’s direct contribution to the critical area of student achievement can be accomplished.

Lapan, Gysbers, and Petroski (2001) reported that the American School Counselor Association (ASCA) had found group counseling to be an integral component of comprehensive school counseling programs. As early as 1999, they considered group counseling to be an efficient and effective way of dealing with students' developmental problems and situational concerns. Howard Gardner’s (1999) holistic approach of intrapersonal intelligence from his list of nine multiple intelligences was used within the methodology of small group counseling. Giles, Pitre, and Womack (2003) described intrapersonal intelligence as the ability to know oneself. As in this research study, the small counseling group setting and the strategy of self-management journaling allowed students to understand their own emotions, motivations, and become aware of their own strengths and weaknesses.

The National Mathematics Advisory Panel Report (2008) (“Effective Mathematics Instruction”, updated December 2011) points out that there are four effective approaches for teaching mathematics to students with learning difficulties similar to those students who are at-risk. Of these four, peer-tutoring and self-instruction are approaches that are emphasized within a small group setting allowing participants to gain cognitive strength through self-instruction by interpreting self-evaluative modalities. As well, through small group exposure they can vicariously learn from the contributions made by the other group members. However, self-instruction as suggested by Graham, Harris, and Reid (1992) , includes self-talk, setting goals, keeping on task, remembering to use a specific strategy, monitoring your own progress and checking your work as you go.

Peer-tutoring, on the other hand, paired the students with other students with learning difficulties confirmed by Kunsch, Jitendra, and Sood (2007) who opines that this strategy works best when students of different ability levels work together. As well Swanson (1999, 2001) and Swanson and Hoskyn (1998) noted the impact when instruction was broken down into steps, students worked in small groups, students were questioned directly, and ongoing practice and feedback was promoted.

2.9 Conceptual Change

Any discussion of conceptual change needs to consider the nature of conceptions. Conceptions can be regarded as the learner's internal representations constructed from the external representations of entities constructed by other people such as teachers, textbook authors or software designers. From a conceptual change learning perspective, learners need to be able to make different representations of entities to make difficult concepts intelligible. (Treagust & Duit, 2008, p.2)

Davis (2001) believed conceptual changes involve educators, first uncovering students' internal preconceptions or misconceptions about a particular topic or phenomenon and then, using various techniques to help students change these misconceptions. Learning can only occur if there is a *conceptual change* (Lucariello, 2012). However, making conceptual change can be difficult for students who build up a high resistance by holding on “tightly” to these misconceptions (Davis, 2001). Wetzel (2008) suggested breaking this misconceptions grip by providing an environment that allows students tangible experiences through discussions and guided questions using inductive reasoning. Similarly, Duit (1999) suggested the Piagetian constructivist view of learning where cognitive conflict strategies can be used as an effective tool in teaching for conceptual change.

Further, Zirbel (2005) suggested that one must go beyond merely telling a student of their misconception. Conceptual change must be provoked through such steps as engaging the student (students willingly place focus on the issue); suggesting bridges (finding connections between their thoughts with new thoughts); querying and confronting students (prior beliefs or thoughts are challenged); and practicing constructive thinking (assimilating and accommodating new information). Within this effort, real learning and provocation of deep understanding and conceptual change is possible (Zirbel, 2005).

This research study applied these steps to provoke conceptual change within a small, collaborative, cooperative and safe environment using counseling strategies or precepts. The affective or emotional precepts seeking conceptual change included building self-esteem, motivation, organizational skills, goal setting and planning skills. These precepts can best be exemplified in Mind Tools (May, 2012). It suggested concise tips for preparing for the world of work that includes goal setting to be a powerful process used by top-level athletes, successful business-people and achievers in all fields. Further, setting goals not only include short-term motivation but will also allow for long-term vision or positive outlooks on the future.

2.10 Summary

This chapter reviewed the literature supporting the school counselor's attempt to make conceptual change within fifth grade at-risk students in the subject of mathematics. Further, the literature reviewed emphasized the accountability of the school counselor in transforming the role and the efforts to make effective contributions to student achievement.

Important to this research study was the literature that discussed the blending of the standards of a comprehensive counseling program with those of common core contents of a mathematics curriculum. As well, the environmental setting was reviewed as being atypical to the learning environment of the classroom and the use of small group counseling.

In addition, outlined, this chapter included reviewing the literature of the at-risk student emphasizing the following:

- At-risk Students are growing in population as those students who are not graduating from high school.
- Self-management, self-monitoring, and self-regulating as a planned focus to help the at-risk students to build aspirations and decision making skills.
- Mathematics and at-risk students pointed out that poorness or weakness in this academic subject was an indicator of which students who could become possible drop-outs.

CHAPTER 3

Methodology

Group counseling, which involves a number of students working on shared tasks and developing supportive relationships in a group setting, is an efficient, effective and positive way of dealing with students' academic, career and personal/social/emotional developmental issues and situational concerns. By allowing individuals to develop insights into themselves and others, group counseling makes it possible for more students to achieve healthier personal adjustment, cope with the stress of a rapidly changing and complex environment and learn to communicate and cooperate with others. Research on group counseling suggests that this intervention is rather robust for a variety of academic, career and personal/social/emotional concerns.

http://www.schoolcounselor.org/files/PS_Group%20Counseling.pdf

3.1 Introduction

Creswell (1998) suggests five major qualitative research traditions of biography, case study, ethnography, grounded theory, and phenomenology (Bowens, 2005). This study lends itself to a case study approach. It is befitting for it follows the parameters suggested by Tellis (1997) of being a sociological study with varied investigational instruments set within an instructional environment.

Schellenberg (2008) noted that school counselors do gather, examine, and generate as part of routine, reflective and investigative practices to facilitate fact-based decision making for optimum functioning when evaluating their installment of various interventions. This chapter provides a qualitative review of the actions taken to examine what happens when there was a blending of the affective standards of a comprehensive school counseling program with the academic standards of fifth grade mathematics to make a cognitive change for at-risk students. A thorough presentation describes what took place to validate the surveys, questionnaires and interviews typical of a qualitative research study.

The analysis of the acquired validating data is important to the accountability of the school counselor's professional practices as it relates to effective contributions to student achievement. Overall, this research study

demonstrated the analysis of the data with a triangulation approach of multiple sources for program evaluation largely through outcomes (summative evaluations) from the school counselor's behavioral and attitudinal observations, rating scales, student journals (i.e., Student Management Journal –SMJ), subject grades and the content of the comprehensive school counseling curriculum.

More specifically, observational outcomes, as with subject grades, indicated levels of improvement constructed of pre-intervention and post-interventions. The comprehensive school counseling curriculum content, as well, used the pre and post-intervention program evaluation as a qualitative view analyzing measurements of change, i.e., Student Success Skills Self-evaluation.

The Likert Scale allowed the participants to self-evaluate the components of their cognitive and affective attitudes. The data was analyzed through the summarization and interpretation of the data each participant provided through an aggregation of agreements of strongly to not sure responses. This information was then distributed on bar charts (i.e., See Table 4.5).

The educational setting of a small counseling group format is explained, particularly pointing out how it differs from a typical classroom setting. As well, each participant is introduced along with the demographics of the elementary school of this research study. Notice that the recognition of the participants involved in this study will be interchanged as either participants or students.

3.2 Research Goal and Research Questions

The major research question was: *“Will the outcome of blending of affective domain standards with cognitive domain standards of mathematics solicit conceptual change in at-risk fifth grade students?”*

The initial purpose of this research study was to contribute to the professional field of school counseling. First, the research question was broken into leading questions to direct the course of action in seeking answers. In brief, the goal was to find out what would happen when a school counselor used the small counseling group format of a comprehensive school counseling program to seek

conceptual change in at-risk students and contribute to their academic achievement in mathematics.

Pertinent to this intervention was the blending of affective and cognitive standards. The Affective and Cognitive Standards (See Figure 3.1) show the state standards for mathematics and affective learning laid out to display how each standard can relate to the other. The participants in this study were made aware that while they are studying algebra concepts (i.e., term expressions, equations) in their mathematics classroom and that the same format is applicable in their daily living problem solving, decision-making and goal setting.

In determining which cognitive and affective standards the standards included outlining the standards (common core standards) required for fifth graders in the area of mathematics with the standards outlined within the comprehensive school counseling program. The mathematics standards in state of this study included the broad areas of algebraic thinking, measurement and data, geometry and mathematical practices. The affective standards, on the other hand, included broad topics of academic, behavior, career awareness and health and wellness.

Next, common deficits or threads of at-risk and ADD students were identified. It was found that these students were deficient in organizational skills, had mathematics misconceptions and perceptions, poor self-regulation and self-management, poor self-esteem, focusing deficits, lacking in responsibility and time management, and poor measurement and data understanding. Each deficit was recognized from past standardized test results, academic grades, and descriptive characteristics of ESE placement and ADD. As well, each student, parent and teachers were surveyed as to their feeling and views about mathematics.

The final determination came by aligning the objectives that would address all of the deficits of both the cognitive and affective domains.

AFFECTIVE STANDARDS	COGNITIVE STANDARDS
(Florida School and Counseling Framework: FLDOE, 2010; ASCA National Standards)	(2010 Next Generation of Sunshine State Standards Common Core – Mathematics)
Daily Life Applications (Life Skills): 5.A:B2.3-6 Student will understand the relationship between classroom performance and success in school, use problem solving and decision-making skills to assess progress toward educational goals, apply knowledge of aptitudes and interest to goal setting	Algebra: 5.A.4.1 Use the properties of equality to solve numerical and real world situations. Student will write equations to represent the real world.
Time Management Skills: 5.A:A2.1-4 Student will apply time-management and task-management skills, demonstrate how effort and persistence positively affect learning, use communications skills to know when and how to ask for help when needed, apply knowledge and learning styles to positively influence school performance	Data Analysis: 5.S.7.1 Construct and analyze line graphs and double bar graphs. Student will represent and interpret data.
Study Skills, Goal Setting: 5.PS:A1.1-6 Student will learn the goal-setting process, identify and express feelings, demonstrate cooperative behavior in groups, identify personal strengths and assets	Geometry/Masurement:5.G.5.1 Identify and plot ordered pairs on the first quadrant of the coordinate plane. Student will graph points on the coordinate plane to solve real-world and mathematical problems.
Personal Social Skills: 5.PS:A1.9-10 Acquire Self-knowledge; learn the goal-setting process, identify and express feelings, demonstrate cooperative behavior in groups, identify personal strengths and assets	
Career Awareness: 5.A:C1.3 Students will understand the relationship between personal qualities, education, training and the world of work.	

Figure 3.1 Affective and Cognitive Standards

In addition, as the participants are learning about data analysis and constructing graphs, charts and tables, they will come to understand that these skills are essential to them as time-management templates for their daily living. They were acquiring self-knowledge and becoming self-managers, and self-regulators.

Consequently, they built personal-social skills such as life skills important to their moving towards the world of work.

Finally, as with algebra, the participants had an opportunity to understand how their study of measurement was relative to their social-emotional skills. The attempt was to help them understand that they would need these skills to be more successful in their school life. As well as coming to know that these skills in school, they would realize that this may be helpful within the world of adulthood. Further details are discussed later in this chapter as part of the instrumentation used in this study, such as the Life Management Scale (See Figure 3.6).

3.3 Research Sub-questions

The following sub-questions helped to more closely define and guide the interventions necessary to the main research question of seeking conceptual change in at-risk students by blending academic domains;

1. Will students understand the relationship between knowledge gained in school mathematics with daily life application?
2. Will students utilize and understand the use of measurement?
3. Will students demonstrate an improvement in students' organizational skills?
4. Will students recognize how personal attitudes and feelings affect behavior?

The sought observations incorporated a research design through surveys, questionnaires, self-tests observations and comparative data to obtain information of a specifically selected section of elementary level students within one nine-week grading period.

The intent of this study was also to recognize and contribute to defining the school counselor's role with a particular emphasis to make a difference in students' academic achievement. The approach was to utilize small counseling group strategies to help students become aware of affective learning in relation to their attitude, behavior, and commitment necessary in being productive citizens.

3.4 The Research Setting

The participating students were given the opportunity to work within a group counseling setting. The Professional School Counseling (December, 2007) points out that the American School Counselor Association (ASCA) includes group counseling as an integral component of comprehensive school counseling programs (Lapan, Gysbers, & Petroski, 2001).

This small group setting was outlined to address the affective attributes of personal-social, career awareness attributes as well as academic attributes – allowing the participants to recognize their personal emotional reactions to the academic or cognitive subject of mathematics. In the small group setting, the students were:

- To use affirmations to sustain and motivate oneself;
- To recognize that self-awareness is essential to make progress, such as believing in ones-self, approaching each endeavor with a positive attitude, and working with stress as a motivator;
- To recognize that the material presented in school is or will become a part of their daily living; and
- To define goal setting, how setting goals affect the course of succeeding and to evaluate the goals that were set.

As well, the small group setting provided an opportunity for the students to delve into those particular difficulties that they were facing in their mathematics classes daily or within the week. Their difficulties may have been with the work itself or interactions with peers and teachers. Examples were shared by the students of how they were able to use appropriate classroom behavior, such as, taking deep breathes when becoming angry, anxious, or feeling unsuccessful. Hints and ideas proved important as the peers in the group related their abilities to move pass road blocks such as discussing their misconceptions or misunderstandings of mathematical concepts. There were opportunities for explanations of how they were able to solve particular mathematical problems or how the use of certain methods helped them to get correct answers.

The small group began with the rationale of addressing the need necessary to student achievement within this school of the research study, a contribution to the school counseling profession, and an assist in helping to define the role of the school counselor. There was research within the school wide plan questioning what contributions would be the most beneficial towards student achievement. It came to recognition that the specific educational category of at-risk students in the subject area of mathematics in the fifth grade would be best served with the theoretical format that modulated between extra-personal (it) and inter-personal (we) characteristics of a counseling group. Some variables of these characteristics included, but not all-inclusive, the task-process type of group, present-future time focus, an expectation of action-development, and facilitative-directive leadership.

Secondly, as suggested by Gladdings, following the rationale, practical considerations became a challenge. Such practicalities as meeting time, place and frequencies required an orchestrated attempt with general education teachers and required academic subjects scheduling. Overcoming those obstacles followed with achieving parental consent and screening the selected participants. All attempts were made to avoid prematurely terminating any of the students that were recognized as beneficiaries. Nonetheless, the personalities of the students did come into play and some of the first selected students no longer were participants.

Typical of much research, parental involvement is key to the direction students take in the school life. Notably, "when schools, families, and community groups work together to support learning, children tend to do better in school, stay in school longer, and like school more." That was the conclusion of *A New Wave of Evidence*, a report from Southwest Educational Development Laboratory (2002). Historically to the school's population in this research study and similar parental behavior seen with students categorized in the characteristics of at-risk (poor parental involvement), the parental role was limited. Parental consent, observations, and documentation (viewing the SMJ and initialing) was sought and encouraged but was not significant to the success or failure of the group work.

As aforementioned, the counselor's role was to be typical to a school or academic setting. The school counselor acted as a facilitator and/or director of the small counseling group. This leader-centered approach outlined and planned each session guided by the participants' participation, contributions, and academic and affective needs. Guidance was also necessary in monitoring academic success, coaching and producing strategies that would encourage self-strengths necessary to the individual group members.

Particular to the mathematical needs of the participants, the school counselor, attempted to make misconception and misperception changes that the participants had about mathematics. For example, many of the participants had difficulty relating what they were being taught in their mathematics class as to having any significance to their lives (keeping a calendar as it relates to measuring and graphing). As well, another example would be creating strategies that the participants could use in capturing a concept; using the tail end of y to indicate the y-axis of a graph or creating an asterisk view of the x-axis.

In addition to encouraging the participants to integrate and apply their learning, keeping on task, or empathizing with the group members, the school counselor used various leadership skills in employing core group skills (such as encouraging self-disclosure or asking-opened questions to release school or school subject anxiety and fears).

3.5 The Research Design

According to Hancock (2009, pp.5-6) using the design of a case study offered "a richness and depth of information not usually offered by other methods. By attempting to capture as many variables as possible, case studies can identify how a complex set of circumstances come together to produce a particular manifestation. It is highly versatile research method and employs any and all methods of data collection from testing to interviewing."

Blitchfeldt and Andersen (2006) expressed that, although case-study research and action research are generic terms, both are concerned with the

researcher's gaining of an in-depth understanding of particular phenomena in real-world settings. As such, the research design for this intervention was action research using a case study approach which utilized a variety of data collection approaches including those of surveys, questionnaires, interviewing, and observations techniques.

Schmidt (2002) and McNiff (1999) pointed out that action research was an up-and-coming acceptable tool to assess strategies as well as providing a chance for the researcher to reflect on effectiveness. They both concurred that social scientists, such as school counselors, have difficulty following the natural science approach and the use of quantitative research methods. Challenged, social scientists often rely on interpretative research (qualitative research) by utilizing such methods as action research and case studies to inquire into social situations.

The use of the action research and case study approach allowed both an interaction of school-based curriculum and an active involvement of the researcher as a participant in seeking improvement.

To improve the participants' self-managing, self-monitoring, and self-regulating skills began with using the precepts of mathematics; daily-life application, organization, measuring, and data collection.

Using the directive and facilitative leadership model, students were encourage to develop ways to better organize themselves; the use of the SMJ (self-management journal). Next, in using the SMJ, the efforts were to have an opportunity to practice self-monitoring and self-regulating skills. The participants had to document completion of different activities (i.e., meeting with the teacher), plan and consider ways to make improvements (i.e., viewing grades), and to employ different strategies as ways to build self-managing and self-regulating abilities (i.e., self-talk).

Finally, students learned to organize themselves with the discussions, comparisons, and modeling of strategies, skills, and suggestions of the fellow group participants.

The content of the group work included goal setting, long and short term planning, building self-worth, learning organizational skills, and the application of

mathematics within daily living. The content also included the interactive journaling guided by the SMJ. This logging allowed students to reflect, build upon, plan, share experiences, and gleam strengths/weaknesses.

3.6 School Population

The targeted participants for this study came from a county where the population was predominantly black and Hispanic. More than 50,000 students out of 345,150 are enrolled in ESOL (English for Speakers of Other Languages Levels 1-5).

All of the participants attended this urban elementary school that served 837 students in the school year of 2010-2011 from the surrounding community. The population of the community was culturally diverse and representative of all social-economic levels. The sub-groups of the student population included an ethnic/racial composition of 43% Hispanic (H), 34% Black (B), and 18% White (W), and 5% Other (O). Forty-eight percent were male students and 53% were female students.

One hundred percent of the students participated in the standard curriculum program while 11% participated in the ESOL program, 7% participated in the Exceptional Student Education (ESE) program, and 10% participated in the Gifted program. Students enrolled at Level 1 of the ESOL program have minimal knowledge of English while students at Level 5 are ready to exit the program.

Statistics of a typical school show that 72% of the students qualify for free or reduced lunch and less than 69% graduate on time (Farrell, 2010). Sixty-four percent of this school's population of students received free or reduced lunch. Unique to this elementary school, in the 2010-2011 school year, there was a rapid rise from 58% to 64% in the number of students who qualified for the free and reduced lunch program. Receiving free or reduced lunch indicated a financial need and an educational disadvantage which then qualified the school to receive federal assistance through the Title I program. That program provided funding for additional programs and services necessary to meet the needs of these students and families.

By grade level, the school population was: 118-Kindergarten, 132-First Grade, 122-Second Grade, 157-Third Grade, 170-Fourth Grade, and 132-Fifth Grade.

As sorted by the No Child Left Behind Act, all sub-groups of students within this school had made Adequate Yearly Progress (AYP) over the past three school years. Particular to this school's student population indicated that the black sub-group was targeted as an at-risk sub-group due to considerable achievement deficiencies comparative to other sub-groups.

3.7 The Targeted Student Participants

The targeted student participants for this research study and key to the case study approach began with eleven fifth grade students (Refer to Table 3.1). Due to unforeseeable circumstances, one intended participant changed schools and another (Paul) attended only 2 sessions but was unable to work within a small counseling group format. This narrowed the target group for the research intervention to nine participants.

The nine participants fit characteristics from two at-risk profiles developed by the Public School Board (2009-2010 school years) labeled as the "Student Assistance Profile" and the "Highway to Success Profile". Each profile recognized at-risk students as those students who may or may not have been psychologically labeled as special education students (SPED), having a poor attendance record, having a poor grade point average, participating in the ESOL program, however previously retained, having qualified for free or reduced lunch, having documented behavior problems (i.e., suspensions from school), their race, and having poor standardized test scores. All of the student participants had at least one or more of the flagged characteristics listed on one or both to the at-risk profiles.

The nine targeted student participants included seven African Americans (blacks; 2 females and 5 males) and two Hispanics (one male and one female). Of the two Hispanics, only one was recognized as a level 5 ESOL student indicating an ability to function within a general education class. All of the participants fitted within the at-risk subgroup of considerable academic concern. Six of the students were recognized for having behavioral problems that required a level 4 out of 5 consequence of suspension from school at a minimum of one time to a maximum 5

different times. Miguel, Davida, Barnard and Carroll each had been psychologically labeled with exceptionalities of Learning Disabilities or Speech Impaired.

Table 3.1 Concise List of Selected Student Participants as described by the “Student Assistance Profile” and/or the “Highway to Success Profile”

Participant	Age	Gender	Race	Grade	Exceptionality	ESOL Level	Attendance	State Assessment Test	Retention	Academic Average	Behavior: Suspension
013 Miguel	10	M	H	5 th	Learning Disability	5			X		1
031 Paul	11	M	B	5 th				X	X		
011 Davida	12	F	H	5 th	Learning Disability	5		X	X		
005 Barnard	11	M	B	5 th	Learning Disability			X	X		2
007 Frank	10	M	B	5 th				X	X	X	3
015 William	12	M	B	5 th					X		5
012 Dawnise	11	F	B	5 th				X	X		2
019 Carroll	12	M	B	5 th	Speech			X	X	X	1
000 Nicole	13	F	B	5 th					X	X	7
006 Kevin	10	M	B	5 th			X	X	X		1
012 Barris	11	M	B	5 th				X	X	X	

Note: M = Male F = Female H = Hispanic B = Black/African American

ESOL = Levels 1 through 5

Beginning with Miguel, the following will provide a brief description of each participant.

3.7.1 Miguel

Miguel was an earlier retained young 5th grade male Hispanic student who had been recognized by his pediatrician as having a disorder labeled as Attention Deficient Hyperactive Disorder (ADHD). Although typically a well-behaved student, he was once suspended (severity of one on a scale of 1:5; 1 as minimum and 5 as severe) earlier in his school life for a misbehavior that warranted that consequence. He lived with both parents and was an only child. He was at times immature and was often teased or taunted by his peers. His reaction to their behavior was to ignore them or pretend not to hear them.

3.7.2 Davida

Davida was an older aged Hispanic fifth grade girl who had been labeled by the school district as having Learning Disabilities. She was an ESOL Level 5 student that once needed acclimation to the English language but had successfully tested out of the program. Throughout her school years she had been a low-achieving student; she failed the state comprehensive test, was retained once in fourth grade and missed one school year (homebound). The retention was due to a combination of poor academics and a medical condition that required her being placed in a homebound (home learning) environment during pre-surgery and recovery. Her brief return to the school environment posed a threat to her physical improvement in her fourth grade year.

3.7.3 Barnard

Barnard was a tall and lanky African American boy. The characteristics that flagged him as an at-risk student included his past retention, poor academics, failure of the statewide comprehensive test in third grade and a number of school suspensions (severity of 3). He had transferred to the school of this study in his fourth grade year due to past behavioral and academic problems in his previous school. His parents were seeking a better school environment and a chance for him

to do better. He and his younger sister were in the same grades (4th and 5th) and within the same classroom in his fifth grade year. She was very protective of him often supporting him knowing that he had done something wrong. Barnard's appearance could be misleading for he seemed unassuming, quiet and shy. His Mathematics teacher commented that *"he just needs to be monitored every now and then to make sure that he is on task. He needs to work in groups to understand newly acquired skills."* He was extremely cooperative, willing to work hard, and was respectful to all during the group sessions.

3.7.4 William

William was an athletic and self-centered African American boy, well-liked by his peers. He was always the center of the "fun" in his small counseling group. The other four males appeared to admire him while the three females were enamored by him. He was serious and focused when necessary and was quick to smile and share jokes to keep levity during the sessions. He played little league football and was a star player. His behavior, although acceptable within the small counseling group, interfered with his regular classroom work. He was not as focused, often sleepy during class, talkative, quick to anger and complained of various ailments. His teachers and classmates all seemed to like him. His teachers made many exceptions for him including weighing his misbehaviors with less use of negative consequences and often referring him to the school counselor for affective intervention.

3.7.5 Barris

Barris was an African American male student, new to the school, came with extreme emotional and physical distress. He was younger than most of his peers and a sibling of three others. He was extremely shy and immature. Consequently, he was very quiet in the afternoon weekly group of which he only attended three of the ten. He also had to make a classroom change due to his emotional behavior. He was a member of the small counseling group because he had poor attendance, academics and was retained.

3.7.6 Nicole

Nicole was a 12 year old African American female who was placed on the at-risk list in her fourth grade year due to high frequency of behavioral problems (7 days of suspensions with a severity of 2) and being retained in fourth grade. She was the daughter of a single mother and the oldest of three other female siblings. She had poor self-esteem, self-worth, and self-confidence. Her appearance, although clean, was one of attempted self-improving modification to irregular sized clothing, poor care of hair, and ill-fitting shoes. The school often provided her with clothing and hair upkeep. Many of her recorded behavioral issues were related to Relational Aggression (girl-on-girl bullying).

3.7.7 Frank

Frank was overweight, very smiley and projected himself as being a very quiet African American male whose mother was eager to have him take part in the small counseling group. The attributes that qualified Frank for the small counseling group included at-risk characteristics of failing the state comprehensive test, retention and poor behavior warranting one suspension. Frank took part in the afternoon small counseling group of which he was faithful, consistent, and maintained a very neat and organized Self-Monitoring Journal. He commented that he felt that being in the group made him *“feel positive that I could do things and improve.”* If he was asked to take part in the group again, *“I would say yes because it is fun expressing your feelings and talking about different things.”*

He had transferred from a previous school in fourth grade due primarily to his behavioral problems. His mother was insistent on making changes for him and within him. She sought the aide of the school counselor for any avenues that would help redirect him including knowledge of existing special outside and within the school mentoring programs. She commented that she saw a need for her child *“to become a strong man of God, staying focused and strong.”* Further, she saw that he had strengths in reading and writing with weakness in Mathematics. She felt that he thought highly of himself and had a love for school. She went on to say that he could improve his social relationship by being a better friend to others by making and keeping friends.

3.7.8 Carroll

Carroll was an energetic, boisterous, street-wise and older African American male. The attributes that added this participant to the at-risk roster included him failing the state comprehensive test, speech disability, retention, poor academics and behavior problems with a severity of 2. Carroll was the oldest child of two parents and 3 siblings. He had transferred from a previous school in fourth grade due to a history of misbehaviors. Although this student posed many problems with his behavior and academics he could be pleasant and respectful. He required a firm hand but one where he felt the adult was genuine and fair. He was seen by the school counselor in individual and small developmental groups. His parents had received referral recommendations for outside of school mental health services for him and his siblings. Often he and his siblings were cohorts in misbehaviors in less supervised situations (lunch, P.E. before and after school, school bus).

3.7.9 Paul

Paul was an eleven year old small in stature African American male. He was the middle child of a family of six children (older brother, older sister and younger fraternal twins) who lived with his mother and, for a brief time, with the father of younger siblings. He had listed at-risk characteristics of failure of the state comprehensive test, retention in 3rd grade and poor academic average. Interesting to this list there was no indication of his past history of misbehaviors or school suspensions.

Paul was being seen by the school counselor for individual counseling due to behaviors of disrespect towards peers and adults, poor academics and anger management. As for all participants, he was interviewed to take part in the small counseling group. He had parental consent and was given a trial opportunity to be in the afternoon weekly group of six other African American of which four were males. In each session he was anxious with the possibility of being volatile and had poor relationships with the other group members. He was argumentative, threatening, and had considerable difficulty following established rules within the group. After attending two sessions he was removed from the group.

3.8 Ethics Procedures

Jointly developed by the National Health and Medical Research Council (NHMRC), the Australian Research Council and the Australian Vice-Chancellors' Committee, the National Statement on Ethical Conduct in Human Research (National Statement) is oriented to the ethical rights of human beings (2007). It establishes rights for research participant and imposes general and specific responsibilities on researchers and institutions. Curtin University in compliance with the National Statement emphasizes that each researcher must meet the outlined specifics of ethics related to participants (chapter 4.2) and the research method (chapter 3.3).

The public school system of this research study regulates the use of students in research. Through a prospectus scrutiny is utilized to insure the safety and confidentiality of the participants (2010). As such, prior approval was obtained as dictated to commence research within the chosen school at the beginning of the school year. Properly requested through a written proposal and oral presentation of the action research study was proposed to the Head of the School who followed the required protocol. Formal meetings were held for all those who would be involved at a convenient time for majority of the adults. At that time, information was provided about confidentiality and other issues that would involve developing informed consent procedures so that all participants were fully aware of the research purposes. Parents of the students involved in this study were given a consent form to be filled. All were given the opportunity to weigh and discuss potential risks.

As with the NHMRC and the public school ethics protocols, the ethical code of ASCA and Fine (1992) purports that information should be provided about confidentiality and other issues that would involve developing informed consent procedures so that all participants are fully aware of the research purposes, weighing and discussing potential risks, and showing responsibility towards the participants by providing necessary information. Informed consent is a striking concern particularly when it involves minors and those in need of supervision. Kodish (2004) clearly states that there has always been a long-standing moral and

legal tradition of respecting the vulnerable population of children and supporting parents as the primary decision makers for these minors.

Each participant was pre-screened individually as required by the code of ethics of the Association of Specialists in Group Work, the American School Counseling Association and the American Counseling Association (Brigman & Goodman, 2001). The pre-screening informed the students of the purpose of the small group, why they were selected, the logistics and session requirements and confidentiality criteria of the school counselor. This allowed them as well as the school counselor the opportunity to weigh the feasibility of their participation (Refer to Appendix C - Forms).

Pre-group screening was done with each participant individually to explain the purpose, benefits, expectations, commitment, meeting times and requirements, group rules, membership role, confidentiality and their consent to participant. Such action is required by the code of ethics established by the Association of Specialist in Group Work, the American School of Counseling Association and the American Counseling Association. Further, this meeting allowed the school counselor to weigh whether or not the participant will fit within the dynamics of this intervention.

Once each individual student agreed and the school counselor felt that they were appropriate for this setting a preliminary group session was established. Only one of the 11 students (Paul) was questionable of his ability to work within a small group but a mutual agreement was made for a trial attempt. During the preliminary group session the information shared in the pre-screening was reviewed along with their knowledge of voluntary choice to take part in the group. Students were given parental permission forms, a written contract and information detailing the contents of each session to be shared with parents. Following a question and answer period, each student signed the written contract denoting their commitment to attendance, participation, and understanding of confidentiality.

Parents/guardians and teachers of the participants were made aware of the individual students that were selected. Available to the parents included a PowerPoint presentation which delineated the intention and purpose of this intervention, permission forms were signed and parents/guardians and teachers were given a questionnaire that sought their perception of each student.

None of the parents of the participants provided any negative concerns for their children taking part in this study. The one and only concern from the participants' teachers was the students missing a classroom lesson that may interfere with success on the statewide comprehensive test documented by academic progress and homework obligations. Such perceptions have become typical as noted by editors Lambert and McCarthy (2006) in "Understanding Teacher Stress in the Age of Accountability". Their editorial stated that *"School districts today face increasing calls for accountability during a time when budgets are stretched and students' needs have become increasingly complex. The teacher's responsibility is to educate younger people, but now more than ever, teachers face demands on a variety of fronts. In addition to teaching academic content, schools are responsible for students' performance on state-wide tests."* (Information Age Publishing, 2011).

3.9 Instrumentation

Each instrument was either due to pass success in other small counseling group or individual counseling sessions or research validated usage. Brigman and Campbell (2003), for example, had found in their research and the use of their Student Success Skills intervention helped students in their self-monitoring and self-regulation with mathematics.

As Gladdings (2003) discussed in his book, "Group Work: A Counseling Specialty", there are many group leadership styles. This researcher found that in the academic setting (primary education) of this small counseling group worked more efficiently under the style of authoritarian leadership (facilitative-directive). The authoritarian leadership is leader-centered, with the leader interpreting, giving advice, and generally directing individual behavior. Using checklists and similar documentations constituted noting each participant's progress. As well, these instruments documented the flow and efficiency of the group's progress catering to modifications as necessary. In Gladding's lists of Nolan's six ideas about group leadership, important was diagnosing. Nolan pointed out that diagnosing in groups

does not usually include psychological instruments but is based more on leader observations.

Endemic to qualitative research, the researcher becomes a participating member of the study and is involved with the participants from which the term *participant-observer* has been coined (Farber, 2006). In efforts to minimize this occurrence, an attempt to gain an in-depth, holistic and perspective view of each participant's affective and cognitive behavior and responses, several questionnaires, surveys and journaling opportunities were housed in a 3-ring binder (named Self-Management Journal or SMJ) for each participant. Other instruments used by the school counselor included a Parent /Teacher Inventory, Student Success Skills Evaluation, the Life Management Scale, Test Yourself on Test Anxiety, Test Taking Strategies, Getting to Know Me, and a Student Inventory.

The emotional chord of each group session dictated the administration of each instrument; whether given at the beginning or at the end of each small counseling group session or to be given during the next counseling session. This meant if the participants needed to begin a session with an urgency to share information or were seeking answers about a particular issue, then the assessment was administered at the end during reflections.

The pre-planned format and flow of the small group intervention using specific instrumentations found within the SMJ can be seen in Figure 3.2. Each week the participants worked within the small group setting using the Self-Management Checklist, the Life Management Scale and choosing Goals and Actions. As well, housed in the binder were the instruments available for use in Session 1 of Student Inventory, Session 5 of Student Success Skills Evaluation and Session 8 for Test-Taking Strategies. The participants were able to avail daily use in their binder a page of affirmations or self-talk statements. Finally, the participants could, at their own convenience, journal within their SMJ their reflections about any mathematical concern or other personal concerns.

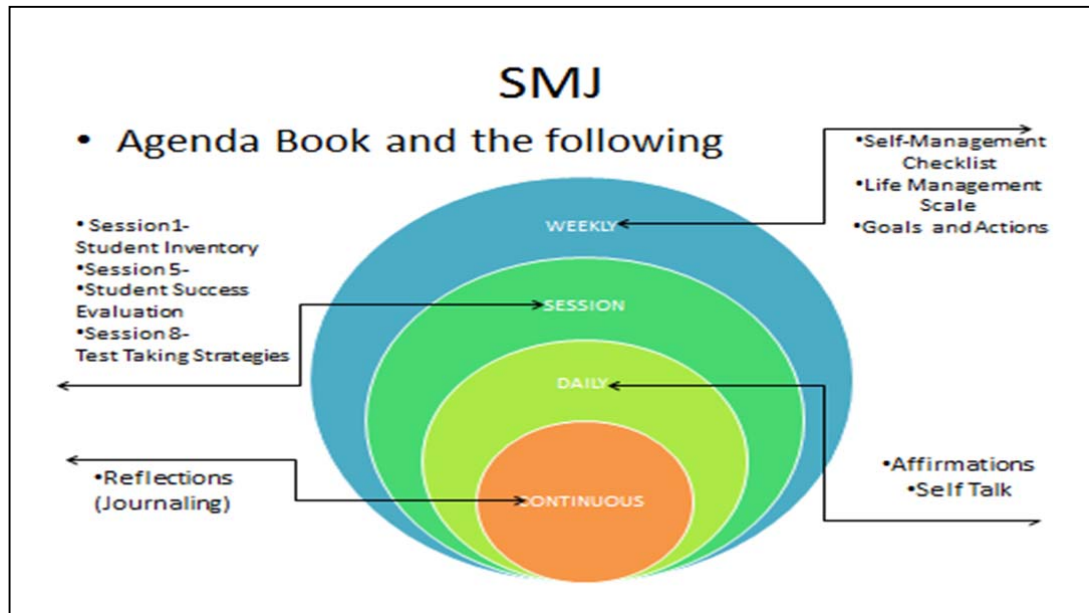


Figure 3.2 Self-Management Journal Format

The figures that follow in this section are cursory representations with more detailed ones located in Appendix A - Instrumentation.

3.10 The Self-Management Journal (SMJ)

The Self-Management Journal (SMJ) served many purposes. It was a reflective journal which was geared to help students become more organized and self-regulate. Participants were able to keep a running record of their attendance, demonstrated an application of a mathematical concept with a real life activity, and gave the participant an overview of their progress in their mathematics class (Figure 3.3).

Week	Attendance	Homework Agenda Sign Off		Weekly Journaling	Goals/ Actions	Week Grade	Life Management Scale
		PARENT	TEACHER				
Pre- Group							
1							
2							
3							
4							
5							
6							
7							
8							
9							
Post Group							

Figure 3.3 Self-Management Journal Checklist

The participants could check off each time that they attended a group session which included the pre-group session, nine weekly intervention sessions and one post-group session. The pre-group session introduced the small counseling format, allowed the participants to become familiar with each other and discussion of the expected guidelines for effective counseling sessions. The post-group session was an opportunity for closure of friendships, evaluation and reflections.

Participants were encouraged to use the SMJ to meet weekly with their mathematics teacher. During this meeting an agreement could be established between the participant and teacher as to the weekly completion of homework and a weekly knowledge of the academic and conduct grades. As well there was a section for a sign-off portion of both the parent and teacher to signify with their initials, if all were in agreement. A weekly check of the Life Management scale encouraged these tasks (See Figure 3.6).

Finally, the participants could indicate if they achieved the goals that were established weekly during the small counseling group session. Reflections of these goals could also be affirmed daily along with optional journaling.

3.11 Parent/Teacher Inventory

The Parent/Teacher Inventory (YouthLight, Inc. 2006) (See Figure 3.4), consisting of 26 statements with a Likert Scale choices of Strongly Agree (4), Agree (3), Disagree (2) and Strongly Agree (1) was used both before (pre) and after (post) the small counseling group intervention. This inventory asked the parents/guardians and teacher their perceptions of the student's thoughts, feelings and behavior in reference to self, others and thoughts about school. As well, these adults were asked to share the needs of the student along with listing the student's strengths and weaknesses. These data were used to compare information gathered from both the student and the parent/guardian teacher. A copy of each inventory was given to all at the pre-group session in August 2010 and again in the end of the ninth group session; January 2011.

Student Name _____ Date _____

Parent/ Guardian – Teacher Inventory

Directions: Complete the following questions by circling the answer that you feel correctly describes the child's thoughts, feelings, or behavior.

	Strongly Agree	Agree	Disagree	Strongly Disagree
WHAT THE CHILD THINKS ABOUT HIM/HER SELF				
He/she likes who she/he is.				
He/she is an important and special person.				
He/she can handle it well when she/he makes a mistake.				
WHAT THE CHILD THINK ABOUT SELF AND OTHERS				
He/she gets along well with others.				
Others are interested in what he/she has to say.				
WHAT THE CHILD THINKS ABOUT SCHOOL				
He/she starts school work as soon as assigned.				
He/she works hard and finishes school assignments.				

Figure 3.4 Parent/Teacher Inventory

3.12 The Student Success Skills Self-Evaluation


The Student Success Skills Self-Evaluation (1991, 2001, J. Weston Walch) (See Figure 3.5) consisted of 10 statements with a Likert rating scale of 1-5 with 5 being the highest/best score and 1 as the lowest/worst score.

This scale allowed the participants to self-evaluate and self-manage. It was developed by Brigman and Goodman (2001) as part of their efforts to “translate the research into practical, easy-to-use tools” (p. vi) for school counselors, psychologists, and other social scientists to effectively lead small group counseling sessions. Revisions were made by the author in the copying; changing of the chart design and words within the directions; and adding a picture.

Name/Id _____ Teacher _____ Date _____

Student Success Skills Self-Evaluation

Directions: The following skills are all important for doing well in school. Rate yourself on each item by circling 1, 2, 3, 4, or 5. Use a 1-5 scale; where 5 is the highest/best and 1 is the lowest/worst.



1. I go to class with the materials I need.	1	2	3	4	5
2. I read and understand all assignments	1	2	3	4	5
3. I have a folder or notebook for each class to help me stay organized.	1	2	3	4	5
4. I turn in all work on time --- no zeros,	1	2	3	4	5

My top three strengths from the list above are:

1. _____
2. _____
3. _____

The areas I most want to improve are:

1. _____
2. _____

Figure 3.5 Student Success Skills Self-Evaluation

3.13 Life Management Scale

The Life Management Scale (See Figure 3.6) is a weekly inventory that was modified to accommodate age and complexity level used with both high school and elementary school students. There are nine statements with a response range from *Not so good* to *Great*. The rating scale ranges each statement from of 1 to 5; 5 being the highest/Great and 1 being the lowest/Not so Good. The participants chose to write yes or no under the columns of emotional responses.

LIFE MANAGEMENT SCALE				
Directions: Rate yourself on the nine items below on a scale from 1-5, where 5 is the highest or best rating and 1 is the lowest.				
Your Performance	Not So Good	Kind of Good	Good	GREAT!
School for me this past week was				
My fun or social time this past week was				
My getting along with my teachers this past week was				
The amount of stress I felt this past week was				
The amount of exercise I got this past week was				
The number of hours I got to sleep this past week was				
My eating habits this past week was				
The amount of energy I had this past week was				
How I have felt or my mood this past week was				

1. What made a big difference in how you rated your performance this week compared to last week?

2. There is always room for improvement in everyone, what will you change to improve your rating score for next week? _____

Figure 3.6 Life Management Scale

3.14 Test Yourself on Test Anxiety

The Test Yourself on Test Anxiety (National Center for Youth Issues, Chattanooga, TN) (See Figure 3.7) instrument has three questions with varied responses: yes/no, personal/social choices and a rating scale of 1 to 3 (1 for never, 2 for sometimes, and 3 for often). The third section includes choices with a score range of 10 to 30 possible points. The summary of this score defines the ranges as little or no anxiety, normal anxiety, and high anxiety. This inventory was administered within the 7th group session.

Name _____ Date _____

Test Yourself on Test Anxiety

Do you get nervous and fearful just before a test? ☐ yes ☐ no

Which of the following are true for you? I get nervous about tests because:

- ☐ I don't know enough.
- ☐ I just panic even though I usually make good grades in school.
- ☐ I haven't studied or prepared.
- ☐ I always worry about things.
- ☐ I'm afraid of disappointing others.
- ☐ I'm afraid of embarrassing myself.

How anxious are you?

Put a number in each blank—1 for never, 2 for sometimes, or 3 for often.

- _____ Right before a test, I have sweaty palms, shaky hands, or other visible signs of nervousness.
- _____ I get butterflies in my stomach before a test.
- _____ I feel queasy or sick to my stomach before a test.
- _____ I look at the test and feel that I don't know any of the answers.
- _____ During a test, my mind goes blank and I forget things.
- _____ I have trouble sleeping well the night before a test.
- _____ I make careless mistakes like skipping questions or putting answers in the wrong places.
- _____ I have difficulty choosing answers.
- _____ I remember the answers after the test is over.
- _____ I panic at the thought of taking a test.

Add up your score. Scores will range from 10 to 30. A low score (10-15 points) means that you do not suffer from test anxiety. In fact, if your score was close to 10, a little more anxiety may be helpful to keep you focused and get your blood flowing during a test. Scores between 16 and 21 indicate a normal level of test anxiety. Scores above 22 suggest that you have a high level of test anxiety. You may need some help with test taking.

* Adapted from questionnaire by Nist and Diehl (1990), and The Center for Advancement of Learning, Muskingum College, 1998.

Tyler Tames the Testing Tiger 67 National Center for Youth Issues, Chattanooga, TN

Figure 3.7 Test Yourself on Test Anxiety

3.15 Test Taking Strategies Pre/Posttest

Test Test-Taking Strategies Pre/Posttest is a school counselor-developed instrument (2009) of 25 questions with responses of true or false (See Figure 3.8). This teaching-formatted assessment provided strategies that the participants could apply, as necessary, when taking an academic test. The highest number of true statements indicated closeness to having an exceptional knowledge of test-taking strategies. In opposition, the highest number of false statements would indicate a need to utilize more of the listed strategies. This instrument was used during the 8th counseling group session.

Name/ID _____ Teacher _____ Date _____



TEST TAKING STRATEGIES SURVEY

True or False

Directions: Read each question carefully and answer honestly. Place a T for True or F for False in the BEFORE column. The AFTER column will filled-in after the group session.

QUESTIONS	BEFORE	AFTER
1. I have a positive attitude throughout a test.		
2. I stay relaxed during a test.		
3. I keep my eyes on my own paper so no one thinks that I am cheating.		
4. When I first get my test, I begin working immediately.		
5. I eat a good meal before the test.		
6. After I receive my test back, I review it to understand the mistakes I made.		


Figure 3.8 Test Taking Strategies Survey

3.16 Getting to Know Me

Getting to Know Me (*YouthLight*, Inc. 2006) is a survey used to begin the individual information gathering session in search of possible membership for the small counseling group intervention (See Figure 3.9). There are eight open-ended statements for the student to fill out individually or to be completed while interviewing with the school counselor. The open-ended statement allowed the students to relate more to their interpretation of the information being sought as opposed to a single answer of yes/ no or true/ false. There was no right or wrong answer only their personal emotional reaction to the statement.


GETTING TO KNOW ME

NAME/ID# _____ Teacher _____ Date _____

 The people in my family are:


One thing I like about myself is:

One thing I want to change about myself is:

The things I like best at school are: 

In school, I wish I could change:

The things I like best at home are:

 At home, I wish I could change:


About my friends, I want to tell you: 

Figure 3.9 Getting To Know Me

3.17 Student Inventory

The Student Inventory (YouthLight, Inc. 2006) is another individual session for information gathering prior to becoming part of the group sessions (See Figure 3.10). It provides insight and information into the student's perception of self, others and school. The student is encouraged to be honest and complete on their own. Upon completion, it is reviewed with students to help them recognize their strengths and weaknesses. The poor and weakest perceptions became part of the goal setting in organization skills sessions 2 and 3. The rating scale is 4 being the strongest, 3 as sufficient, 2 as poor and 1 as the weakest.

Name/ID # _____ Teacher _____ Date _____

STUDENT INVENTORY

Directions: Complete the following questions by circling the answer that you feel correctly describes your thoughts, feelings, or behavior.

	Strongly Agree	Agree	Disagree	Strongly Disagree
WHAT I THINK ABOUT ME				
I like who I am.				
I am an important and special person.				
WHAT I THINK ABOUT ME and OTHERS				
I get along well with others.				
Others are interested in what I have to say.				
WHAT I THINK ABOUT ME and SCHOOL				
I start my school work as soon as assigned.				

Figure 3.10 Student Inventory

Additional instruments that were not maintained by the participants included the school counselor's periodic check of their interim progress reports (distributed 4th or 5th week of a nine week grading period) and academic grades inputted into student portal weekly by their mathematics teacher.

3.18 The Intervention – Small Counseling Group

3.18.1 General Issues

The format and structure of the study followed closely the suggestions of "Group Work; A Counseling Specialty" from Gladdings (2003) and Birgman and Goodman's "Group Counseling for School Counseling: A Practical Guide" (2001). This growth-centered group (Myrick, 1987) was to enable students to explore their feelings, fears and concerns, and personal behavior about mathematics. There was an intended promotion of social competence utilizing behavioral principles of minimal instruction (i.e., learning multiplication facts), modeling (i.e., suggestions

for easy understanding of division), feedback (i.e., interim progress reports), coaching and encouraging success (how to meet and discuss progress with classroom teacher), various assignments (self-reflection recordings), and social rewards (i.e., building reward bracelets) (Rose, 1987). This in effect, according to Gladding (2003, p. 257), allows a more personal touch to be added to the learning process and gives the school counselor an opportunity to get to know the participants more deeply and help them in specific ways.

The physical structure was a circle format around a table which allowed direct access of participant to participant with the school counselor as the identified group leader (Gladding, 2003; Yalom, 1995). It was important that the participants were able to be verbally interactive and willing to work cooperatively in this group atmosphere which is indicative to achieving cognitive benefits.

The participants were divided into groups according to mutual time schedules of the school counselor and their specific classroom subjects and times. Consideration was given to students' general education classroom schedule, avoiding being removed from core subjects (Reading, Language Arts, Mathematics, Science, and Physical Education). Each group was scheduled for nine weekly 45 minutes to one hour small counseling group sessions. Group one consisted of Brenda and William who had the same classroom teacher while the other five were part of group two with different teachers but like times of availability.

In keeping with the format of small group counseling, each session was designed to be focused, structured and goal-oriented to have a better success rate as suggested by Brigman and Goodman (2001). As well, strategies and activities were established for each session objective along with process questions and goal setting. However, to accommodate the fluidity of a heterogeneous group, attitudes, feelings and reception of the participants, fluctuations were allowed. Each weekly session had a beginning, middle and end portion.

The intervention began with the small counseling groups scheduled for Monday 10:05-11:00, Wednesday 11:05-12:05 and 1 afternoon group on Wednesday at 1:05-1:45. After many manipulations due to factors of participants not fitting well in a group due to behavioral problems, poor academics that required other additional interventions, withdrawal from school and/or other duties required

of the school counselor the final small group scheduling became two groups as noted in Table 3. 2.

Table 3.2 Small Counseling Group Schedule

Participants	Day	Time
GROUP A		
Frank, William, Dawnise, and Nicole	Monday	10:05-11:05
GROUP B		
Barnard, Davida, Miguel	Monday	11:05-12:05

The Post-group interview session is an opportunity for reflection and summarization of the entire small group counseling experience. Brigman and Goodman (2001) consider this stage in small group counseling as Stage 3—Closure and Consolidation (page xii). The school counselor explores what each student garnered from the experience and the intervention. Each student was interviewed again with the survey titled “Final Evaluation of Small Group Work - Blending Conceptual and Affective Standards” (Figure 3.11) and the Final Small Group Formal Individual Student Interview (Figure 3.12). Questions included whether they would continue to practice what was learned, any changes achieved, and their goal for the future as well as their feelings about being in the group. Also both the parents and teachers were given the post survey Parent-Teacher Inventory (See Figure 3.4).

Name/ID _____ Teacher _____ Date _____

PART ONE	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
The Group					
I enjoyed working in a small group.					
I got along well with the members of my group.					
Goal Setting					
I know how to choose a goal.					
I know how to plan and take actions to meet my goal					
Self-management and Organization					
I start my school work as soon as it is assigned.					
Academics					
I have my materials needed to do my work.					
I participate in class discussions.					
PART TWO					
*Overall, this group work was					
Very helpful					
Helpful					
Okay					
Not helpful					

In this group I felt _____

Because _____

Figure 3.11 Blending Conceptual and Affective Standards

Final Small Group Formal Individual Student Interview

1. Being in the group I felt

2. The thing or things that I will remember the most

3. The thing or things that I liked the least

4. Since being in the group, I
_____ math.
5. If asked to do this (being part of a group and discussing math and feelings) again, I

6. Math and my feelings I have about it are

7. Being successful in math is

Because

8. Tell me more about some of the things that you've learned about math and your feelings.

9. If I can improve anything about myself, I would

10. If I can change anything that has happened since becoming a member of the group, I would

11. Anything else you would like to add

Figure 3.12 Final Small Group Formal Individual Student Interview

3.18.2 Nine Once-a-Week Small Group Counseling Sessions

3.18.2.1 Nine Weekly Sessions

Once the participants were selected and all approvals validated, the premiere session began: according to Gladding (2003) it was important to deal with apprehension (each participant is worthy), review goals and contracts, specify rules (taking turns), set limits (be prepared to work), and encourage positive interchange among members (respecting other's opinion).

All attempts were made to follow a structural format due to the school setting thus considering the groups to be psycho-educational and involved in a task or work for each of the participants. This structuring of the group included a preplanned nine-week agenda to insure that both the cognitive and affective domains were addressed (See Table 3.3).

However, as Gladdings found, this did prove to be a disadvantage due to the many fluctuations in attendance, scheduling, or the typical life of a school setting. However, as Corey and Corey (2002) opined, although the disadvantages prevailed with structuring, it is not the amount of structure but rather what degree of structure that is important (Gladdings, 2003). The degree of structure began to diminish as the sessions progressed and the students became more confident in being participants, accepting of the format, and understanding their role as a group member.

Table 3.3 Group Procedures Recognizing Affective and Cognitive Domains

Small Counseling Group Procedural Plans				
Session	Task	Sub Tasks	Cognitive Domain	Affective Domain
Preliminary	Review individual meetings, group confidentiality	Questions/Answers, Confidentiality, sign written contract	Mathematics	Personal/Social
1	Introduction Understand group set-up, SMJ contents Surveys	1. Ice breaker, explanation of activities for SMJ: i.e., parent handout, weekly affirmations 2. What is a goal? Write a goal 3. Life Management Scale	Algebra Geometry Measurement	Career Awareness/Community Personal-Social
2	Continue Introduction and Organization skills Revisit goal and actions Surveys Affirmations	1. Homework preparation: go over using homework agenda, must be entered daily, weekly check by counselor 2. Do time management, select 3 goals (1 for math and 2 for behavior)	Algebra Geometry Measurement Data Analysis	Academic Achievement Career Awareness/Community Personal-Social
3	Revisit goal setting and actions Management Skills Time management skills: using charts and tables for daily learning skills	1. Script Time Management 2. Surveys	Algebra Measurement Geometry Data Analysis	Academic Achievement Career Awareness/Community Personal-Social

3.18.2.2 Sessions by the Week

It is important to point out that each weekly group session had a beginning, middle, and an end portion. The beginning, as an example, included using an ice breaker to help students feel comfortable and enabled them to offer their own urgent input. One ice breaker was allowed each participant to name their favorite color and why. Another one was to choose a pseudonym they would like when the results of this study was shared. Each of these activities seemed to help create a bond between the participants as they found commonalities with each other. This was much more prevalent within the group of more than two participants.

The middle of the session allots for active learning, skill building, and transfer of skills to their daily classroom work portion. Session 4, for example, allowed participants to first complete the survey Student Success Skills Self-Evaluation. Then, putting this aside, they moved on to working on building mathematics confidence by manipulating sections of Brigman and Goodman's (2001) building mathematics confidence and academic support lessons. These activities involved the following:

- The students worked on throwing out negative feelings about mathematics with an activity where they created individual slips of paper of all of their feelings about mathematics. They then arrange them into piles of negative and positive ones.
- The participants discussed their statements; their meanings and how there were similarities and differences within the members of the group. Davida was able to smile and express her positive words as related to her in real life; "I like that math help me to spend my allowance money better."
- The participants were encouraged to relate their statements to their survey. Then, they choose reasonable physical ways to dispose of the negative ones, i.e., ripping them, tossing them into the trashcan like basketballs.

The ending of the weekly group session, as that of Session 4, allowed students to make conclusions, reflect on what they had learned about their feelings towards mathematics and to prepare goals/actions, along with deciding on an affirmation for the coming week. Barnard chose the affirmation "I don't doubt my abilities; I doubt my strategies and do something different."

The ending portion also gives the participants time to reflect on their goals and actions and to consider their strengths/weakness by documenting in their student management journal.

The following outlines the contents of each of the nine sessions for this study:

3.18.2.3 Initial session (Session 1)


This session also included the school counselor reviewing the purpose, group rules and confidentiality; setting goals and actions; establishing weekly affirmations (positive statements about oneself - Figure 3.12), and the work required of the students (i.e., completing surveys). All of the students knew each other from past years in the same school or the surrounding community. Important to this session was goal setting, receipt of their Self-Management Journal and understanding its content.

Knowing me, I will be able to figure it out!

Knowing myself, I am sure that I will do fine!

The goals I set today for myself will help me in the days to come.

Today and every day I visualize rainbows in the skies and a pot full of golden opportunities.

 **I am getting my education and putting it to good use.**

I see myself smarter, wonderful and happy.

That's not like me – I'm usually more _____




Figure 3.13 Affirmations and Self-Talk

Sessions 2 through 8 were planned to address necessary cognitive and affective skills necessary to help improve student achievement along with provisions of personal-social skills. The sessions included Organizational Skills, Time Management Skills, Study Skills, Self-Esteem Building, Test Anxiety Reduction, and Test-Taking Strategies.

3.18.2.4 Sessions 2 and 3

These two sessions focused on organizational skills where the participants managed and recorded their completion of classroom teacher assigned homework; group attendance record; documentation of weekly journaling, goals and actions, weekly grade and life management scale completion. This recording sheet was maintained in the participants' self-management journal (SMJ) as a way for them to monitor themselves. In particular, students had a place to monitor their homework assignment performance with the option for parent, teacher, and/or school counselor to initial once the homework was completed. It was intermittently checked and discussed in different sessions to see if the self-monitoring was working. Students were required to put the plan into action during sessions 3 and 4 and self-monitor throughout the other sessions.

The complexity of organizational skills and an important need for the participants necessitated two sessions. Included were sub-tasks of using a daily log (charting and graphing) and specifics to being organized through discussions of having proper school materials, homework environment in the home, setting and following goals, and interpreting rates of documenting personal actions.

3.18.2.5 Session 4

During this session allowed for establishing and discussing time management skills. The participants were made aware how this activity related largely to the mathematical use of charts and graphs to layout data for analyzing. They were also were given the opportunity to gleam how important this ability would be in life applications through discussions and the recording done in their SMJ on the Life Management Scale and Student Success Skills Self-Evaluation instruments.

3.18.2.6 Session 5

Study skills were the focus of this session providing tips and suggestions. These tips were very algebraic and related to life learning skills. Discussion was centered on the thought that "Mathematics is a part of our everyday life". Efforts were made to demonstrate how the skills learned could apply to various facets of

the lives and success in their academics. The tips included developing good listening skills, meeting deadlines and that “attitude is everything.” As well the group suggested actual examples such as, studying and doing homework, setting a schedule, having a study area, getting organized and doing the work themselves.

Traditional to small group counseling, this session also made the participants aware that they were halfway on their way to being more successful in their Mathematics by improving their attitude, behavior, making correct choices and being in charge of their own learning. Also, that their time in the group setting was nearing the end.

3.18.2.7 Session 6

This session was an opportunity for participants to further look into self-improvement by setting personal and social goals to acquire academic success. Each participant practiced self-talking, selected self-affirmations, and role-played for visualizations and kinesthetic input. They boosted their self-motivation through physical activities such as using sign-language gestures to remember affirmations. An example of the sign-language affirmation, Kaizen, can be seen in see Figure 3.14.

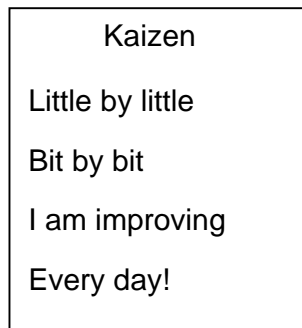


Figure 3.14 Kaizen

3.18.2.8 Session 7

As the participants moved through the counseling sessions, this session promoted comfort and sureness in preparing the participants for the statewide test which was focused primarily on Mathematics and Science for fifth grade. This session flowed with a continuation of self-talk and affirmations. Students practiced

breathing exercises, relaxation techniques and visualization of achievement. Discussion was centered on “busting” myths, worries and concerns.

3.18.2.9 Session 8

This session continued with the focus on statewide comprehensive testing with discussing and modeling test taking strategies. Student brought questions about particular mathematical concerns that were troubling them. Most were concerned with multiplication facts and understanding long division.

The Test Taking Strategies Survey (Refer to Figure 3.8) was an instrument key to prompting discussion and soliciting suggestions. Participants were able to gauge if they were feeling any test-stress. Strategies were discussed and developed to address their stress, such as how to do long division. An example of a division helping strategy that was used to help the participants in solving long division problems included the following steps (See Figure 3.14):

- Students were required to use lined paper for setting up the problem which helped to keep the construct order and to maintain neatness.
- Student must write out each step in the process and to repeat the process over and over again as they move through each step.
- It necessary to repeatedly ask the questions throughout the process; for example; *how many (name the divisor) are in the (name the dividend)?*
- With the process, the student must work from left to right of the dividend.
- Symbols are drawn as needed, such as using lowercase “x” as the symbol to remember to multiply.
- The quotients with dividends must line-up.
- Students are reminded to work slowly and methodically (Take your time).

3.18.2.10 Sessions 9 and 10

These two final sessions allowed time to review and bring the study to a close. Session 9 gave the participants time to complete various surveys. As well, a time for those who wanted to complete any other surveys, questionnaires or any other form found in the SMJ.

Albeit session 10 brought an end to the group sessions it prompted, as very typical, some sadness. Each group had prior knowledge of the timed finality and had planned to celebrate with refreshments. With levity, the participants were able to express emotions, thoughts, concerns, beliefs and goals for the future.

Problem: Divide 25 into 450

1. Draw the equation $25 \overline{)450}$
2. Ask a question. How many 25s are in 450?
3. Start with the first digit. $25 \overline{)4}$
4. How many 25s in 4? None because 4 is smaller than 25. I need to make it larger.
5. How many 25s are in 45? $25 \overline{)45}$
6. The answer is 1.

$$\begin{array}{r} 1 \\ 25 \overline{)45} \end{array}$$
7. I put an x to remember to multiply.

$$\begin{array}{r} x \quad 1 \\ 25 \overline{)45} \end{array}$$
8. ~~8~~ Multiply and Subtract

$$\begin{array}{r} x \quad 1 \\ 25 \overline{)45} \\ -25 \\ \hline 20 \end{array}$$
9. How many 25s are in 20? It's too small. I need to make it larger.

$$\begin{array}{r} x \quad 1 \\ 25 \overline{)450} \\ -25 \\ \hline 20 \end{array}$$

Figure 3.15 Mathematical Construct: Practicing Division

3.19 Conclusion

The intervention of this research study consisted of nine to ten sessions from a preliminary session to assess suitability for such a setting to post-group evaluations of emotional and conceptual change. The participants completed self-informative activities through specific forms that encourage this inner look which prompted an experience of how their personal-social skills and academics were interrelated. Completing the “Getting to Know Me” survey, for example, was an instrument to help the students achieve a sense of how their learning of Mathematics was affected by their attitude.

Pre-plans were made to create a workable flow of specific work within the small counseling groups. However, typical to groups, the flow and success of the group was dependent on the emotions, thoughts, feelings or mood of the group. Unlike a classroom with an established academic agenda, the interaction between the participants dictated the course of the small counseling group sessions as opposed to the proposed agenda or goals set for that session. Emphasis was more on the group process rather than on the content material.

CHAPTER 4

Findings

Professional school counselors can influence students' self-perceptions, self-restrictions, and academic experiences through direct and indirect services. (ASCA, 2012)

4.1 Introduction

This chapter provides explanations of findings, the intervention design and instrumentation of the research study that questioned what would happen when a school counselor focused on helping at-risk students undergo conceptual change in mathematics within small group counseling sessions. Included are the results of a semester's progress of fifth grade students and the findings achieved using the instructional format of small group counseling. Presented is an overview of these small groups counseling sessions that blended mathematics and personal-social standards.

Further, this chapter shares the observations and interpretations of the school counselor, the participants, the parents, and the teachers. The results are largely derived from the use of the Final Evaluation of Small Group Work – Blending Conceptual and Affective Standards inventory and the responses derived from each research sub-question.

4.2 Purpose

The purpose of this chapter is to present the findings derived from this research study which may provide light or give accountability to more interactive counseling to the school counselor as a viable contributor to the academic

achievement or success of students. Or, it may provide a snapshot of what consequences may arise when an attempt is made to include affective intervention in student cognitive progress.

The underlined intention of this research study was to demonstrate the findings when a school counselor could target specific standards and objectives of the academic core subject mathematics, in conjunction with applying counseling standards and objectives which aid at-risk fifth graders. According to ASCA (2005), this outcome can be achieved through the implementation of strategies and activities which support and maximize the participant's abilities to learn. For example, when working in the counseling domain of personal social-emotional goals, participants in this study also are working in the cognitive domain of Algebra, Data Analysis, Geometry and Measurement. Would this study subsequently demonstrate that the blending of cognitive and affective domain standards and objectives solicit conceptual changes?

To achieve an overview of each participant, information was gathered through various instruments which included the school counselor's observations, parent/teacher observations, student perceptions, data from the quarterly report card (grading periods of nine weeks each), and small group counseling group success results. Majority of the data were qualitative which meant there would be no comparisons, such as comparing participants achievements being more than another, but, rather, it was to view each participants' academic development and personal/social (self-esteem) perceptions. As well, much of the findings or results are the interpretations of the school counselor's expertise.

4.3 Design and Instrumentation

The setting of this research study was the use of the small counseling group format. The data or documentation of the information garnered from this counseling environment was the use of various personal social-emotional instruments that were meant to not only improve academics but to also allow the participants to experience an inner self-investigation in achieving specific goals. The focus was on just such needs of the participating at-risk fifth grade students as they

learned to set goals, apply time management, learn test-taking strategies, study skills, and organization skills. As well, there was reduction in test anxiety and a demonstration of how these strategies can have real life application.

Various investigative instruments were used to search for understanding and to provide meaning and relevance for each participating student. The included instruments were a *Pre/post Teacher Inventory*, *Student Success Skills Self-Evaluation*, *Life Management Scale*, *Test Yourself on Test Anxiety*, *Test-Taking Strategies Pre/Posttest*, *Getting to Know Me*, and *Student Inventory*.

4.6 Intervention Using Small Counseling Group Procedures

The intervention of this research study consisted of nine to ten sessions (See Table 4.3) which included individual interviews and/or pre-group session. If the participant was deemed a suitable candidate for group intervention, the next session would be the introduction session or session one. The participants completed self-informative activities through specific forms that encourage this inner look which prompted an experience of how their personal-social skills and academics were interrelated. It was clear that completing the “Getting to Know Me” instrument helped the students achieve a sense of how their learning of Mathematics was affected by their attitude. This was particularly evident when they answered; “One thing that I would change in school”. Also, if they were performing poorly in Mathematics, they could respond to “One thing that I want to change about myself.”

The data achieved from this research study is now prescribed using the school counselor’s observations/notes, parent and teacher observations, various inventories administered to the participants and the findings in relation to this study’s research sub-questions. The research sub-questions guided the course of action of the research study by focusing on affective interventions of time management, study skills, goal setting, testing taking strategies, stress reduction, self-management and self-reflections. It was intended that the students would understand how such personal attributes and life application skills could be used in the mathematical attributes of algebra, measurement, numbers and data analysis,

and how these affected their academic achievement. The data also included the school counselor's notes along with students' (participants'), teachers' and parental responses' on questionnaires and interviews.

Table 4.1 Planned Interventions for Each Group Session

Session	Task
Pre – 1	Introduction: ice breaker, explanation of activities, parent handouts, weekly affirmations and career focus.
2	Organization Skills #1: Homework preparation: go over using the SMJ daily recording, school counselor checks
3	Organization Skills #2 (continuation)
4	Time Management Skills: Using charts and tables for daily learning skills
5	Study Skills
6	Self Esteem Building
7	Test Anxiety Reduction
8	Test Taking Strategies
9-10	Review and Closure

4.4 School Counselor's Observations of the Participants

4.4.1 Miguel

Miguel lived with both parents and was an only child. He was at times immature and was often teased or taunted by his peers. His reaction to their behavior was to ignore them or pretend not to hear them. He became a member of the small counseling group of three peers from his class which began within one month of the first grading period of the school year. The group consisted of one other male (African-American) and a Hispanic female. There were 10 once-a-week, one-hour sessions; 11:05 a.m.-12:05 p.m.

During this 5th grade year, his Mathematics grades fluctuated from an average grade of "C" to "F" with an overall final grade of "C" on his report card. He required close supervision from the teacher, school counselor and his parents to

help him to focus, improve organizational skills and to stay motivated. His parents provided outside of school academic help with tutoring and use of a school counselor.

Miguel's first of four interim academic progress reports projected him making average to above average grades (which could be "A", "B", or "C") in all of his core subjects with the exceptions of Mathematics and Social Studies. It was anticipated that he would earn an "F" in each of those two academic subjects. His teachers commented, that first interim, that Miguel needed close supervision, he was not completing his required classroom assignments and requested a parent conference; *"Miguel needs to be closely supervised to make sure that he's on task. He needs to be redirected and lacks motivation and does not follow through with assignments that are sent home."* Consequently, he was placed in the school district's accepted academic interventions (including small group counseling) for Mathematics.

The data from Miguel's parents that was indicated on their Student Inventory, felt Miguel liked who he was but had extreme difficulty handling criticism or the teasing by others. As well they indicated that there was a very good relationship between him and his parents but he experienced some problems making friends. In reference to school, they felt that Miguel's feelings about school were favorable in respecting the school's rules and requirements but in some ways he did not like school. In particular, he strongly felt that school was not a friendly place. Overall, his parents chose the following goals for Miguel to work on within the small counseling group:

- Be able to handle criticism well and the teasing by others
- Be able to find school friendly
- Be able to handle school difficulties.

4.4.2 Davida

Davida's report card for her fifth grade years showed her starting the school year earning a letter grade of "C" which she maintained for the second and 3rd reporting periods only to receive a letter grade of "D" as her last nine week's grade. Her final grade for the year averaged as a "C".

Davida was an only child who was a very quietly spoken girl but was "motherly" towards the members in her small counseling group of three. She projected herself as the student who was doing all the right things required by the group leader and reminded, as well as assisted, the others when they were not focused, needed help, or were misbehaving. She took part in the once-a-week hourly morning group, 11:05 a.m. -12:05 p.m. Although she did not do all of the "homework" tasks assigned by the school counselor, she was very neat and organized in maintaining her self-management journal. She often needed the opportunity to re-explain directions to the other group members to fully understand those given by the school counselor. If not, her attempts at the task were often wrong. As well, she took upon herself to make sure that the group followed with the weekly activities, i.e., *"Miss, we need to check our affirmations today."*

Davida's first and last interim progress report showed where she earned the letter grade of "F" in Mathematics which indicated a failure of the subject if she did not improve over the coming 4-5 weeks. Her grades in her other core subjects fluctuated between above average to below average in Reading along with the Mathematics. Her teachers reported that she was receiving assistance in improving her academic process through specific school district approved interventions and that her earning a better grade was still a requirement.

Although her parents were very effortless in assisting with Davida's schooling, they admittedly did not feel comfortable with the language barrier. All efforts were made to communicate within the home language with parents giving effort with attempting some inventory responses; they provided signatures and accepted any and all school supported efforts (i.e., taking part in academic interventions). They often depended on Davida's interpretation of any communication. Davida was honest in her attempt to be a great interpreter however; her understanding at times was askew.

The post inventory from her parents indicated that they felt that she strongly liked herself, that others strongly liked her and she strongly like school. Their goals for her had been:

- To improve in reading and mathematics.
- To maintain her strengths including being very friendly; she also liked animals and playing outside.
- To recognize her weakness in the academic subjects of reading and mathematics.

4.4.3 Barnard

Barnard's history outside of the group setting had not preceded him but his hidden antics were quickly found out. His anger flared in unsupervised arenas with a very quick heartfelt denial when the issue was addressed. Within a supervised environment he was very covert and could be seen as someone who is not involved. During the course of this study (the school year's first nine weeks) he was suspended twice for a minimum of 2 to 5 days. His offenses included stealing and threatening bodily harm with a possible weapon.

Barnard's report card exhibited that he earned the letter grade of "D" his first nine weeks, a "C" in the second nine weeks and an overall final grade of "C" in Mathematics. Such efforts exemplified his Mathematics teacher's impression of his strength during class - one of *"willingness to put effort into his work and asks for help when it is needed."*

As a third participant and second male within the morning's one hour, once-a-week small counseling group session he was the least prepared due to his infrequent attendance. This was a typical characteristic for Barnard as his Mathematics teacher pointed out that his weakness was that *"he does not follow through with assignments that have to be completed at home."* His first interim progress report showed that he was on the verge of earning the letter grade of "F"; a possible failure in Mathematics for the first grading or report card period. His teacher commented only that he was working below grade level. However, his fourth interim progress report showed that he making marked improvement to a possibility of earning an average letter grade of "C" in Mathematics.

The improvement of a grade of “C” from an “F” appears to be remarkable in that his other academic grades in the first interim progress period showed an overall “B” average, with an “F” only in the academic subject of Mathematics. Notably, his fourth and final interim report showed a drop to an overall average of “C” in the other academic subjects with an upward improvement only in Mathematics.

4.4.4 William

William was very introspective. He admitted his love for playing football and that he needed to change his anger that often led to him fighting his male peers.

The beginning of the school year for William in Mathematics started with him earning a “D” the first grading period and a final overall grade of “C”. His interim report indicated that he was bound to earn a “D” the first grading period because his poor attendance was seriously affecting his progress. However, his attendance did improve but by his fourth interim report his inappropriate behavior began to interfere again. His teacher noted that his classroom behavior was declining and he was failing to complete required classroom assignments. Nevertheless, he did make personal changes for his last report card indicated that he had earned the grade letter of “C” as opposed to the looming letter grade of “F” indicated on his interim progress report.

4.4.5 Barris

Barris did not maintain a Self-Management Journal, did not do any group homework, nor verbally participated in the group. He was also seen by the school counselor on an individual basis where he was able to provide some communication which helped him to be switched to a different classroom environment. There were no parental or teacher responses when Barris was the liaison between the counselor and other adults.

Barris’ academic year started with an interim progress report for the first grading period with pending failure in the subject of Mathematics. In turn, he did receive a failing grade on his first report card. This was the pattern for the rest of the school year until a counseling request and recommended a change in teachers

in the fourth grading period. The results of the change were very positive which became evident at the end of the fourth grading period where he earned a letter grade of “B” in Mathematics. Due to grades of “F” for 3 grading periods, his final overall grade average remained an “F”.

4.4.6 *Nicole*

Nicole was extremely respectful towards the school counselor, tried to please, and was openly helpful during group sessions. This was not always seen in her regular classrooms. Teachers reported her being at times disrespectful and discourteous. However, many of her teachers did sympathize with her home situation and tried to be of help and have understanding when her homework was not up to par with her abilities.

Nicole maintained her Self-Management Journal with considerable care and attempted all of the homework. She was an avid participant and was cordial to all the members of the afternoon weekly group, including with the other female African American member and flirtatious with one of the African American male members.

Her Mathematics teacher saw her as being on par with caring about others and that she did try her best in school. She further noted that Nicole was somewhat poor at handling mistakes, trying new things, completing homework, finishing classroom work and accepting constructive criticism. Very similarly, her grandmother reported similar observations while disagreeing that Nicole liked herself and considered herself an important and special person.

Nicole’s school year began with her showing poor work in Mathematics with an interim progress report showing the possibility of failing the subject in the first grading period. She did go on to earn the letter grade of “F” in Mathematics on her first report card. She continued to fluctuate throughout the school year earning an overall Mathematics grade of “D” (which is considered a passing grade). She had earned a grade letter of “C” in the second and fourth grading period on her report card.

4.4.7 Dawnise

Dawnise's teachers agreed she was a motivated student who was kind and wanted to learn. She was lacking in a firm educational foundation particular in reading where in fifth grade she was an emerging reader. Specifically, her Mathematics teacher reported that Dawnise did not see herself as an important person; she did not like herself, was afraid to try new things and was unable to handle difficult or hard things. She agreed with her teacher for she said being successful in Math is *"okay but sometimes I think that it is a little hard."* However, she did like school, respected and liked her teachers but was poor at focusing, participating in class discussions and returning homework.

Throughout the school year, Dawnise's report card reflected fluctuating letter grades of "D's" and "C's". She began with a "D" the first grading period only to show improvement after the group involvement to earn a letter grade of "C". Her final overall grade was a "C". This was remarkable for her first interim progress report indicated that she was on the verge of earning an "F" or failing Mathematics if improvement was not achieved.

Dawnise reflected in her interview that she *"felt good and happy about being in the group. The thing that I remember the most is how Ms. Dean (the school counselor) cared for us in the group and loved us. I didn't like anything least in the group. I have almost mastered math. If asked to do be in this group again I would like to do this again. I feel very confident about my math now. Being successful in math is very great because when someone gives you a question about math, you can already know. I would change nothing about the group and if I can improve myself, I would be a better reader and writer."*

4.4.8 Frank

Contrary to his mother's view, Frank's Mathematics teacher saw a student who did not favor himself, afraid to try new things, and could not handle criticism or teasing very well; he did, however, have problems handling friendship problems. His first interim progress report viewed the possibility of earning a letter grade of "D" in Mathematics. This began to change by the second grading period when his interim progress report displayed incremental improvement of "C's" to finally to a "B". His

quarterly report card showed him earning a “D” for the first grading period to a “B” the last fourth grading period with an overall final grade of “C” in the subject.

4.4.9 Carroll

This participant’s accelerated misbehaviors throughout the school within the second grading period required lengthy suspensions and parental decision to transfer him to another school which was so detrimental that it caused him to not receive letter grades for the second grading period (participant’s attendance at the new school was not long enough to earn a letter grade). He did however return for the third and fourth grading periods of which he did receive letter grades. However, he was not able to receive final overall grades for he and his siblings were asked to leave the school due to more excessive misbehaviors.

Carroll had been scheduled for the afternoon small counseling group but due to his severe deficiency in his academics, he was required to attend specific academic interventions (Reading, Mathematics and Science). These interventions were provided during core subject time as well as special areas of Art, Music and Foreign Language.

In addition, he was seen in speech therapy at least once a week. In the re-shifting and regrouping of the participants along with Carroll’s school attendance interfered with his small counseling group attendance consistency. In essence, the only school counseling allowed was individual counseling on an as-needed basis.

Further, he received no assistance from home. He did not maintain a Self-Monitoring Journal. He was not dependable as the liaison to share information with his teachers and parents. However, during group sessions he was participatory but at times silly, distracting and manipulated others to get off task.

4.4.10 Paul

Paul’s anger management difficulty precluded his being able to present any data related to the intervention. He attended two small counseling group sessions but contributed only the school counselor’s observations of his behavior as a group member.

4.5 Semester's Progress of the Nine Participants

The counseling standards are specified by the American School Counselor Association (ASCA, 2001) and are used as a model for the state school counselor's framework. As well, these standards outlined the local school board's comprehensive program. These standards were designed to help students focus on academic, personal/social and career development so they can achieve success in school and be prepared to lead fulfilling lives as responsible members of our society.

The role of the school counselor participating in this study has been eliminating, decreasing, or changing the weights of specific duties from student-counselor relationship to more of an administrative role and crisis-led situations. The local school board within the Student Services Comprehensive Program lists the school counselor's role as a part of the instructional staff with four modes of delivery of services; Curriculum (structured, developmental experiences presented through classroom and group activities), Planning (help students become aware of and plan, monitor, and manage their own personal, educational, and career development), Responsiveness (activities to meet the immediate needs and concerns of students whether these concerns require counseling, consultation, referral, or information) and System Support (school wide activities that establish, maintain, and enhance the total student services program). Concisely, these modes are exhibited through Counseling (individual, small groups, and large classroom sessions), Consulting (working with teachers, parents, and administrators) and Coordination (conducting school wide student services such as attendance or career awareness). This participating school counselor's duties, largely, focused on Coordination and Consultation.

The use of the student inventory projected self-perceptions along with their parent's and teacher's perceptions. In having knowledge of this, the participants and the counselor were able to focus further on the results during the small group counseling sessions. The abbreviated information in Table 4.1, for example, shows small counseling group attendance and academic improvement. As well, the results of this observation will be discussed further in this chapter.

Table 4.2 Participant's Attendance and Improvement Before, During and After the Small Group Counseling Session

Participants	Student Attendance 1-10 Sessions	Letter Grade	Letter Grade	Letter Grade	Improvement Yes or No
		<u>Before</u>	<u>During</u>	<u>After</u>	
		First Report Card Grade	Interim Report Card Grade	Final Overall Report Card Grade	
Miguel	10	D	D	C	Yes
Davida	9	D	C	C	Yes
Barnard	5	D	F	C	Yes

Inventories were given to all students, their parents/guardians and their teachers. They were labeled as Parent/Guardian-Teacher Inventory and Student Inventory (copies can be seen in Appendix B). Each inventory allowed for documentation of the observers' perceptions and personal views of the students' strength and weaknesses (academic and/or social abilities).

The inventories were divided into 4 parts: what the student thinks about him/herself (acquiring self-knowledge); what the student thinks about him or herself and others (acquiring interpersonal skills); and what the student thinks about school (academic self-concept and improving learning) The fourth part required written reflections of the student's needs, strengths and weaknesses (self-knowledge application) and was not given a range. This approach permitted the observers to express their view of feelings or perceptions on the level of agreement; strongly agree, agree, disagree, and strongly disagree, respectively. Table 4.2 projects a sample of the views of a participant, the parents and those of the teacher.

The findings showed that the observers, students, the parents and the teachers, for the most part had a very similar view of the perception of the students. This can be interpreted to indicate that all of the observers were positive and open-minded towards making attempts to be more successful in self-improvement and the participants wanting to learning. Of the nine participants, only two (Carroll and Barris) did not have any data to present and one (Barnard) that did not have a returned parent inventory. Also, only one student (Barris)

indicated extremely negative responses in the areas of self-knowledge and self-concept.

Table 4.3 Parents, Teacher, and Student Inventory Sample

Miguel	Observer	Strongly Agree	Agree	Disagree	Strongly Disagree
Self-Knowledge	Student	X			
	Parent		X		
	Teacher		X		
Interpersonal Skills	Student	X			
	Parent			X	
	Teacher		X		
Self-Concept	Student	X			
	Parent			X	
	Teacher		X		

4.7 Working with Mathematics within the Small Counseling Group

It important to point out at this junction, pre-plans were made to create a workable flow of specific work within the small counseling groups. However, typical to groups, the flow and success of the group was dependent on the emotions, thoughts, feelings or mood of the members of the group. Unlike a classroom with an established academic agenda, the interaction between the participants can dictate the course of the small counseling group sessions as opposed to the proposed agenda or goals set for that session. Emphasis was more on the group process rather than on the content material.

As well, atypical to the classroom providing a tangible representation of what the student acquired from the lesson (i.e., paper-pencil, test, etc.) proved to be difficult in a school counseling session. There were discussions and demonstrations of ways to solve problems, attempts to answer questions that the participants faced, and the expressions of emotions were not documentable and at

times were confidential (shared confessions and personal thoughts privy only to the group).

Nonetheless, mathematical concepts provided a framework of reference for group discussions. Examples included participants' misunderstanding or where they were unable to grasp particular mathematical equations or expressions. Those examples shone light on what had been causing them duress during a mathematics class lesson or homework. One tangible suggestion developed by the group to achieve understanding of how to accurately recognize and label the X and Y coordinates on a graph can be seen in Figure 4.1. (The participants used the tail of the Y to indicate the Y-axis for its construction was vertical, therefore, the X-axis had to be the horizontal axis.)

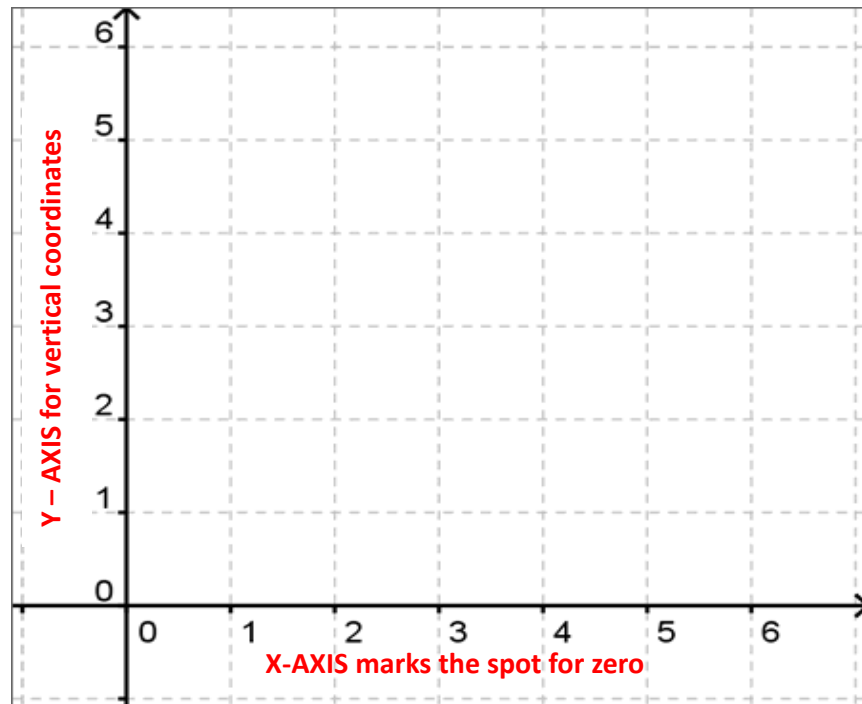


Figure 4.1 Recognizing X- and Y- Axis

The discussions helped the participants to create an inner vision along with cues to remember how to perform the concept. As time went on the participants began to understand that their emotions, thoughts, and feelings played an important role in how they progressed in mathematics. Nicole, for example, realized

during one of the sessions that she had been expressing this through her incessant confessions of self-doubt. She also blamed the teachers for not helping her to do better in Mathematics and dwelled on self-pity and nervousness.

As result of the group discussions, Davida, reflected in her “Knowing Myself” that *“she excelled in taking care of her body through exercising, but needed to improve her weakness in reading and mathematics by keeping up and never giving up.”*

During each session participants were asked to check-in by voicing either their own affirmation or self-talk (i.e., Frank exclaims, *“I am an intelligent person. Today I set goals I know I can reach”*) or a choice provided in their SMJ. Some students were able to share reflections to help them realize the drawbacks that interfered with their learning or their emotional reactions to the academic subject of Mathematics. This opportunity resulting in them recognizing their strengths and reinforced their self-worth. Time was also given for recording and/or sharing their weekly goals and actions with the school counselor providing prompts. As a result, the participants became aware of their weaknesses and had learned ways to address them. For example, Barris recorded, *“My goal for this week is “to read and understand my mathematics assignments.” My plan for reaching this goal “is to ask for some help if I don’t understand something.”*

4.8 Findings from Selected Sessions

4.8.1 Session: Completing the Self-Management Journal (SMJ)

The small counseling groups were held within the school counselor’s office. Participants and school counselor sat at a rectangle table rather than in a regular circle of chairs to accommodate their use of their Self-Management Journal Checklist (See Figure 3.2) found in the SMJ. The school counselor documented the attendance and reflections of each group’s activity as seen in Figure 4.2. Of the nine participants, seven attended all nine sessions.

The following displays the session attendance (section 1 attendance) and reflections (section 2) of the Self-Managers' small counseling group held on Wednesdays 1:05 p.m. -1:45 p.m.

Section 1 Session Attendance

Student Services Small Counseling Group Lesson Plan

Title: Self-Managers SESSION DAY(S) Wednesdays 1:05-1:45

Student	Teacher	1	2	3	4	5	6	7	8	9	10
		10/06	10/13	10/18	10/28	11/03	11/10	11/17	11/24	12/01	12/08
Frank	P.	x	√	√	√	√	√	√			
Barris	A.	x	√	√							
William	P.	x	√	√	√	√	√	√			
Carroll	A.	x	√	Moved to another group							
Dawnise	P.	√	√	√	√	√	√	√			
Paul	A.	√	√	No Longer							
Nicole	P.	√	√	√	√	√	√	√			

Section 2 Session Reflections

Reflections

Session 1	Paul's behavior interfering –considering moving to anger management group or individual sessions. All others eager to get started. Time spent gathering students. The session did not start until 1:15. The group guidelines were done, completed Getting to Know Me, students received notebook/binder (SMJ) with all forms. Confidentiality and privacy was discussed. Everyone except for Frank and William returned their permission form. Students had snack. Homework (HW) was to read the HW insert and to create a cover page for their SMJ. Students left for bus and Frank to parent pick up. There was not enough time to go through the SMJ or have reflections. Barris had some difficulty adjusting: he made jokes, snide remarks, unable to stay focused on the Getting to Know handout, needed much prompting and correcting. He was the last to leave (and needed a personal escort to the school bus) because he still had placed all of SMJ pages in to the binder. Counselor had sorted his sister earlier in the week for her to give the permission slip to their parent. Mother was very agreeable for the intervention and had sent the form in earlier with Barris who made excuses that he had forgotten it, left it in his book bag or he did not know where it was. He was very hesitant about coming to the group; he was the last to enter the room and was much disorganized.
Session 3	All present and added Nicole . Problem again with schedule. Will need to adjust. Had to pick up students. Some students were testing in their classroom. Reviewed first session and attempted to start lesson plans. Went over the affirmations. Students selected a couple, especially liked Kaizen. Spent most time with friendly chats. Barris still uncomfortable. William playful and flirtatious with girls. Difficulty focusing on students entering their reflections. Easier dismissal this time around.
Session 4	Focused on Life Management scale. Students selected and discussed goals and action plans. Students better at recording, discussed weekly progress, homework and if there were any issues for discussion – not any. Carroll had to be placed in another time slot/conflicting intervention schedule. Need to reconsider Barris' placement.
Session 5	Need to restructure groups. Worked on handouts in SMJ and students were better at writing reflections. HW – behavior corrections for William . Make group changes.

Figure 4.2 Small Counseling Group Sessions

Each participant documented their attendance for their mathematics class within their SMJ which was optionally supported by their teacher and/or parents. This action of documenting attendance was greatly accomplished for the students completed this portion prior to the beginning of each group session or completed it during the routine of check-in at the beginning of the session. All nine of the participants had 100% attendance in their mathematics class as verified by their teachers or parents.

A consistent problem became apparent when the students had to account for their weekly grade documentation. Davida was the only student who was able to provide nine grades during the intervention. When each group was questioned as to the reasons for not documenting their grades, the consistent comments included either forgetting to ask or the teacher could not provide it. The groups concluded after discussion that each participant would make a note to themselves within their SMJ to ask the teacher. In addition, when the school counselor followed up these omissions with the mathematics teacher, the participants' accounts were confirmed.

4.8.2 Session: Time Management

During this session participants were able to be reflective in their understanding of how being cognizant of time plays a key role in their daily activities. The Student Success Skills Self-evaluation instrument helped to prompt responses from the participants. An example of one finding came from Frank who assessed his strengths and weaknesses in being prepared for school, keeping track of subject grades and staying focused in class; He commented that *"I work well in pairs or small groups with others in class"* and wanted to improve by *"keeping track of my grades. I know how my teacher decides the final grade. I will listen and focus during class and I usually understand what is being taught."*

4.9 Results from the Sub-Questions

4.9.1 Research Sub-Question 1: Will students understand the relationship between knowledge gained in mathematics in school with daily life application?

The Final Evaluation of Small Group Work – Blending Conceptual and Affective Standards inventory was used to ascertain if the participants were able to associate the vocabulary and functions of mathematics with everyday life tools expressed through personal-social skills. As referenced in Chapter 3 (Figure 3.11).

Final Evaluation of Small Group Work-Blending Conceptual and Affective Standards), there were ten specific questions that ranged from Strongly Agree, Agree, Not Sure, Disagree, and Strongly Disagree (See Tables 4.4 and 4.5). Seven of the nine participants completed this inventory. Table 4.4 provides an example of one participant's (Miguel) response to sub-question one.

Table 4.4 Participant Miguel Responses to Sub-question One

QUESTIONS	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
Math is a part of my everyday life.	X				
I solve life problems like finding a solution for a math problem.		X			
My success in school is important to my life as a grown up.		X			
I can rate myself on how I feel, what I am doing, and what is best for me.		X			
I am willing to try something new if my strategies are not working.		X			
I doubt my strategies, not my abilities.			X		
Goal setting can improve my work progress and improve my self-confidence.		X			
I know at least 3 steps in the goal setting process.		X			
I know how to plan and take actions to meet my goals			X		
I know how to choose a goal.	X				

Further interpretation of the Final Evaluation of Small Group Work – Blending Conceptual and Affective Standards inventory - can be found in Table 4.5.

The table displays an overall view of all of the participants with the results of the inventory question by question per each participant with ranges.

- Question 1, *math is a part of my everyday life*; solicited four participants who strongly agreed with having this knowledge while only one simply agreed. The other two participants either disagreed or were not sure.
- In response to question 2, four participants were able to agree that their knowledge of the similarity of life problems with that of solving mathematical problems. More specifically, two of them strongly agreed, three agreed, and one who strongly disagreed. The remaining one participant expressed not being sure.
- All of the participants were in positive agreement with their responses to Question 3. Four out of the seven strongly agreed while three out of the seven agreed that their success in school was important to their life as grownups.
- Question 4 provoked positive agreement, as well, with equally strong agreement or agreement that they each participant felt capable of rating themselves on how they feel, what they are doing, and their confident in knowing what is best for them in their learning and achieving in school. Only one participant felt incapable of self-assessing these self-management and organizational abilities.
- Five participants, in response to Question 5, positively agreed that when faced with difficulties in mathematics they were willing to make conceptual change. They were willing to change their established strategies if they were not working. On the other hand, two of the participants were not sure that they could move away from the strategies that they had always used for another even if the strategy was not helping them to be successful.
- Question 6 was an extension of efforts to use affirmative self-talk when faced with negativity. Two out of the seven participants were doubtful or not sure if they could trust their personal abilities. These abilities centered on their confidence in their strategies to solve mathematical problems. The other five chose to doubt their strategies and not their abilities.
- Overwhelmingly, all of the participants positively agreed in response to

question 7 that goal setting could help improve their work progress and self-confidence. However, in response to Question 8, only five of the seven were sure enough in knowing at least 3 steps in the goal setting process.

- As well, they all agreed or strongly agreed in Question 9 that they knew how to plan and take actions to meet their goals but with some discrepancy. Two of the seven, in Question 10, were not as sure in knowing how to choose their goals.

Table 4.5 Responses Related to Sub-Question 1- Final Evaluation Inventory

QUESTIONS										
SA = strongly agree A = agree D = disagree SD = strongly disagree NS = not sure										
NA = no data available										
Participants	1	2	3	4	5	6	7	8	9	10
Miguel	SA	A	A	A	NS	A	A	NS	A	SA
Davida	SA	SA	SA	SA	SA	NS	A	SA	SA	NS
Barnard	SA	A	SA	SA	SA	A	SA	A	A	SA
Nicole	SD	SD	SA	SA	SA	SA	A	A	A	SA
Dawnise	SA	SA	SA	A	A	NS	SA	A	SA	SA
William	A	A	A	A	NS	A	SA	SA	SA	NS
Frank	NS	NS	A	DS	A	A	SA	NS	A	SA
Barris	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carroll	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

4.9.2 Research Sub-Question 2: Will students utilize and understand the use of measurement?

The results to this research question was evidenced when the participants documented their weekly self-managing progress on the Life Management Scale (See Figure 3.6) and the Student Management Journal Checklist (See Figure 3.3) stored in their Student Management Journal. These two specific inventories were chosen to allow the participants to apply the mathematical concepts of measurement by using a chart, time management, and calculation of the participants' academic weekly mathematical grades.

However, as the small counseling group work progressed, both inventories posed problems. The Life Management Scale was not done with fidelity due

primarily to the amount of small counseling group's weekly scheduled time and the amount of group work needed (i.e., lengthy discussions, activities that demand spur of the moment interventions, or behaviors and attitudes). The small counseling group pre-plans dictated nine weekly Life Management Scales. Of both groups (9 students), on the average, only 3 to 5 out of nine, or a little less than one-half of the weekly scales were completed by the participants.

On the other hand, the participants were able to reflect and rate their personal performance during a school week. The completed scales rarely rated not so good (negative) but modulated in the positive rates (kind of good, good and great). A sample of one of the participant's use of the Life Management Scale is show in Figure 4.3.

Name/ID # _____ Teacher _____ Date _____

LIFE MANAGEMENT SCALE

Directions: Rate yourself on the nine items below on a scale from 1-5, where 5 is the highest or best rating and 1 is the lowest or worst rating.

Your Performance	Not So Good	Kind of Good	Good	GREAT!
School for me this past week was				
My fun or social time this past week was			✓	✓
My getting along with my teachers this past week was				✓
The amount of stress I felt this past week was			✓	✓
The amount of exercise I got this past week was			✓	✓
The number of hours I got to sleep this past week was			✓	✓
My eating habits this past week was			✓	✓
The amount of energy I had this past week was			✓	✓
How I have felt or my mood this past week was			✓	✓

1. What made a big difference in how you rated your performance this week compared to last week?
The number of hours I got to sleep this past week was great and last week it was kind of good.

2. There is always room for improvement in everyone, what will you change to improve your rating score for next week?
I will change how I felt or my mood this past week was.

3. Is there a connection between any of the different performances that made a difference in your rating score?
There is school this past week was and my fun and social time this past week was

4. Was there a difference between your performance in school and with your friends?
NO

Figure 4.3 Participant use of the Life Management Scale

The use of the Student Management Journal Checklist also proved to be difficult to maintain. Many of the participants shared that they were unable to maintain this chart. Although there is not a conglomeration of quantitative evidence, there is evidence that some of the participants were able to measure their self-management skills (personal/social skills) and were able to apply the skill of charting; a form of measurement. For example (See Figure 4.4), one participant,

David, was able to measure her self-managing progress through her Self-Management Journal checklist which showed her weekly progress with an average grade and discussions with both her teacher at school and her parents at home. Over a period of 6 weeks she, on her own, requested a weekly meeting with her mathematics teacher who reviewed her grades of “F, D, C, C, D, and C”. This was reflected on her Goals and Actions chart and documented with the signatures of both her parents and teacher. She stated in week 2 that her goal for the week that she “*would be to be able to read and understand each assignment.*” Her plan to reach the goal was “*to study each day to understand what she had read.*”

Name/ID		Date					
DAVID PARTICIPANT		Teacher					
WEEK	ATTENDANCE	HOMEWORK AGENDA	SIGN OFF	WEEKLY JOURNALING	GOALS/ACTIONS	Week Grade	Life Management Scale
PRE	YES			YES 1/2	YES	F	
10-24	YES			YES 4/5	YES	D	NO
11-09	YES			YES 4/5	YES	C	YES
11-15	YES			YES 6/6	YES	C	
11-20	YES			YES 5/5		D	
11-29	YES			YES 8/8		C	
12-6	YES			YES 8/8			
12-13	YES			YES 10/10			
12-20	YES			YES 10/10			
12-27	YES			YES 10/10			
POST	YES			YES 10/10			

Figure 4.4 Sample of a Self-Management Journal Checklist – David

4.9.3 Research Sub-Question 3: Will students demonstrate improvement in their organizational skills?

Getting organized was a large part of this intervention. It was the intention that by creating the Student Management Journal (SMJ) the students would be able to maintain all of their small counseling group handouts and have a place to house their reflections, goals and actions and affirmations. Each SMJ had a Checklist where the participants could record parent/teacher signatures and documentation of weekly journaling, goals and actions, weekly grades and the life management scale. The use of the SMJ was challenging because it was found that any outside of school work done in it was taken as additional homework for students who already were having difficulty with regular classroom work. Also, many of the fifth graders were

utilizing a school wide planner as a similar tool as liaison between home and school soliciting similar information as the SMJ. Therefore as a consensus of both groups, it became an optional homework project but more of an in-group tool to aide in discussions and group work. There was also the problem of students remembering to bring the binder to the group session often causing returning to class to get it or to make a verbal excuse, i.e., *"I left it..."*

Also, over the course of the group sessions becoming more established, all of the participants readily brought their SMJ with them. As well, the use of organizational skills began to become evident when the participants were to add their weekly grade to the SMJ. One participant, Frank, for example, was the first to find a way to more accurately gain knowledge of his weekly grade and could set up meetings with his teacher when he had questions. He indicated on his Self-Management Journal Checklist that he could use the school district wide provision for student access to the district's computer portal. This portal provided information for parents and students of their weekly class grades, quarterly report cards, assessments, class assignments, homework assignments, and interim progress report. The usage of this portal became a big part of the group activities when reflections and journaling were being done or discussed.

As an additional aide for improving their organization skills, participants utilized Good Study Habits – Important study tips during discussions. These tips emphasized having a set scheduled time for homework (avoiding watching television and playing technological games), have a material filled homework area of necessary working tools, such as pencils, lighting, paper, etc. Reminders included checking the back pack or book bag daily to be sure not to forget anything, sharing information between parents and teachers, and reinforcing the use of a calendar to stay abreast of required future assignments and deadlines.

Comparison of each participant's Final Evaluation of Small Counseling Group Work as to their use of organizational skill discussed during group can be seen in the statements under Self-Management and Organization and under "What the Child Thinks about School" in the Parent and Teacher Inventory (Excerpts of these categories have been compiled to form Table 4.6). These data indicated that most of the participants, parents and teachers were in agreement that some

organizational skills were achieved. However, for example one male participant had more behavioral problems, will still need to have more focus placed on achieving these skills. Also, it was interesting that another male participant disagreed that he recorded his homework assignments when his SMJ was one of the ones that was well maintained.

The final data also indicated that the teachers and parents were in complete agreement with their observation of Miguel. However, due to the parents not completing the entire observation chart or were not sure, may show a lack of parent/teacher communication. In particular, this may be obvious with Barnard, Nicole and Dawnise. Neither student's parent knew whether or not the students had materials for school, if they completed their homework or if they began their class assignments when given. In spite of this, of the three students, Barnard was able to receive positive responses from his teacher in all three areas. Nicole's parent was not sure about her completion of homework and her starting class assignments. Her teacher clarified this with negative responses to both. Dawnise, albeit her parents did not complete this portion, received only one negative response in not completing her homework but positively had her materials and completed class assignments when given.

Frank and Davida's parents and teacher disagreed in all three areas of organizational skills but only in the strength of the agreement; agree and strongly agree. William's parent and teacher were opposite in two particular areas. It seems as though his parents believed that he did his homework and completed classroom assignments but his teacher indicated that this was not what occurred.

Table 4.6 Organizational Skills Responses

Participants	Miguel	Davida	Barnard	Frank	William	Dawnise	Nicole
Statements							
Self-Management and Organization							
I have proper materials necessary to be successful for school.		Strongly Agree	Strongly Agree	Agree	Agree	Agree	Agree
I have learned that everything has its place.		Agree	Strongly Agree	Strongly Agree	Agree	Strongly Agree	Agree
I keep records of my homework assignments		Strongly Agree	Strongly Agree	Strongly Disagree	Agree	Strongly Agree	Agree
I complete and submit my homework.		Agree	Agree	Strongly Agree	Agree	Disagree	Agree
Parent Inventory		Agree					
He/she has materials.	Agree	Agree	NA	Strongly Agree	Strongly Agree	NA	Agree
He/she completed Homework	Agree	Agree	NA	Strongly Agree	Agree	NA	Not Sure
He/she starts assignments when assigned	Agree	Strongly Agree	NA	Strongly Agree	Agree	NA	Not Sure
Teacher Inventory							
He/she has materials.	Agree	Strongly Agree	Agree	Agree	Agree	Agree	Agree
He/she completes homework.	Agree	Agree	Agree	Agree	Strongly Disagree	Disagree	Disagree
He/she starts assignments when assigned.	Agree	Agree	Agree	Agree	Disagree	Agree	Disagree

4.9.4 Research Sub-Question 4: Will students recognize how personal attitudes and feelings affect behavior?

Students' understanding of how their attitudes and behavior affect their progress through life is essential. School Counselors dedicate the majority of their work helping students to build their self-esteem, value their self-worth and protect their character through the provision of comprehensive standards of personal-social

skills. Such was the intention of the sub-question seeking to find if the students recognized how their personal attitudes and feelings affected their behavior.

Taking part in this intervention of small counseling group enabled at-risk participants to look at their own attitudes and to reflect on their own feelings, particularly since the students were in threat of failing academically and thus not having successful performance. All available efforts were to provide tips, and strategies; manipulate self-perception; and motivate necessary changes. As well, there was the inclusion of specific focus on the core academic subject of Mathematics. Several of the participants are now discussed as examples.

Mathematics is a subject that can ignite misconceptions that may become rooted in many students' psyches often producing such negative responses that causes many students to give up. For example, one participant respond that at the end of eight group sessions, to her success in mathematics was *"it is okay; sometimes I think it is a little hard."* Dawnise also included in her journal a familiar reaction to mathematics; *"Today, not so good because I got an "F" on my math test. I had studied for it but I got nervous and I just forgot everything. Plus, I did not finish the test so my day was not so good."*

Several self-evaluation handouts such as Student Success Skills Self-Evaluation, and Life Management Scale were utilized to help sway such reactions and perceptions. They assessed their testing taking stress level with the Test Taking Strategies Survey and Test Yourself on Test Anxiety handout. Additionally, participants worked with ways to relieve stress, anxiety and nervousness using group discussions, and physical exercises.

Using the handout (See Figure 3.5), Dawnise was able to look at her self-rates recognizing her strengths and areas in need of improvement.

On November 22, 2010 Dawnise reported the following.

My top three strengths are:

- 1 *I have a folder or notebook for each class to help me stay organized.*
- 2 *I go to class with the materials I need.*
- 3 *I have at least one study buddy in my math class.*

The areas I most want to improve are:

- 1 *I will keep track of my grades and know how my teacher decides the final grade.*
- 2 *I will ask a question when I do not understand what is being taught. I need to know when and how to ask questions.*

She also noted that before the group work of focusing on test taking strategies all of the areas that caused her anxiety or affected her ability to do well.

- She did not stay relaxed during a test
- Did not begin working immediately when she first received her test
- Did not review mistakes made on the test after receiving it back
- Did not look for or recognized key words during the test
- Never asked teacher for help when she did not understand a concept
- Worried that other students would finish before her
- She rushed to get finished
- She did not physically prepare herself before testing; goodnight of sleep, eating a good breakfast, set alarm to be sure to get up on time

Name/ID # Davida Teacher Date



LIFE MANAGEMENT SCALE

Your Performance	Not So Good	Kind of Good	Good	GREAT!
School for me this past week was			YES	
My fun or social time this past week was			YES	
My getting along with my teachers this past week was			YES	
The amount of stress I felt this past week was		YES		
The amount of exercise I got this past week was			YES	
The number of hours I got to sleep this past week was			YES	
My eating habits this past week was			YES	
The amount of energy I had this past week was		YES		
How I have felt or my mood this past week was		YES		

1. What made a big difference in how you rated your performance this week compared to last week?

Cool, fun and happy

2. There is always room for improvement in everyone, what will you change to improve your rating score for next week? To exercise and study and focus

3. Is there a connection between any of the different performances that made a difference in your rating score? All of the stress can make a difference and if I exercise I calm down

4. Was there a difference between your performance in school and with your friends?

My friends help me and we can then play

Figure 4.5 Davida's Life Management Scale

Davida and William, like Dawnise, did not review their mistakes on a returned mathematics test; however, after group work and discussions Davida indicated that she had made a change. She began to review her returned tests. Notably, Davida also indicated in her reflections on the Life Management Scale that she saw a connection between the different performances that made a difference in her self-rating: *"all of the stress can make a difference and I exercise, I can calm down."* (See Figure 4.5)

Barnard, similarly to other students, felt very little stress for test taking. He only indicated that his poor strategies included him not tackling the hardest problems first, worried that others would finish before him, and that he did not skip and come back to a question when he could not figure out the answer. He went on to be very positive about using the Life Management Scale and Test Taking Strategy Survey while opposing the Student Success Skills Self-Evaluation: *“The important things I learned are the Life Management Scale and Test Taking Strategies Survey. The most helpful part of this group is when we did the Life Management Scale. I have improved by bringing my grades up.”*

4.10 Summary of Findings

It has been observed that the blending of cognitive and affective standards maximized the potential of students who were labeled as “at-risk” because they were at a great possibility of not graduating or essentially dropping out of school early. The most obvious evidence of this can be seen in the participants’ academic improvement as noted in Table 4.1. Every participant’s final Mathematical grade improved from a failing grade (“D” or “F”) to an average grade of “C” or better. Davida was the only student who was appearing to not be making academic gains but she miraculously recovered with a letter grade of “C” as her final overall grade. Barris made the greatest gain by earning a letter grade of “B” as the final overall grade (See Table 4.1).

Academic improvement was particularly noticeable for participants Frank, Carroll, and Nicole. Each was recognized as being deficient in this area as an indicator of being at-risk (See Table 3.1). As well, this outcome was an important improvement for all of the participants who had been retained and mathematics grades were still in decline until their participation in this intervention.

Not so obvious was the intervention of affective standards which can be noted through reflections, expressions and actions. As part of this research study, the participants and other observers completed a variety of inventories that noted such personal-social and emotional reactions and perceptions. As well, the participants were allowed a learning environment (small counseling group) where

these affective attributes could be explored, discussed, manipulated, and supported.

For example, each participant took part in one of two different final interviews to express their feelings and thoughts about being a part of a small counseling group as it related to mathematics, their empowerment and their future plans; Final Evaluation of Small Group Work- Blending Conceptual and Affective Standards (Figure 3.11) and Final Individual Student Interview (See Figure 3.12). The questions were largely open-ended which allowed the participants to complete sentences started by the school counselor.

One resulting comment as to the effect of being a participant in this research study came from Nicole, in the Final Individual Student Interview, she answered question 7 by commenting; "Being successful in math is great because when someone gives you a question about math, you can already know it." She continued in question 8 by answering what she had learned about math and her feeling; "I feel very confident in my math work."

Not only did the participants get a chance to look inward, address some of their emotional weakness and build from a support group, but they also had an opportunity to focus on their weak academic area of mathematics. This research study intervened in their poor academic school life and emotional issues by blending areas of needs (See Figure 3.1). The blending of the affective and cognitive standards allowed the participants to acquire the attitudes, knowledge and skills that contribute to effective learning in school and across their life span. This was evidential when Frank expressed in part two of the Final Evaluation of Small Group Work- Blending Conceptual and Affective Standards (See sample in Figure 4.6). He had overall positive perceptions of blending his affective learning with his cognitive learning. He admitted to learning how to set goals and make plans to reach those goals. As well, he expressed that he knew that he had improved in completing and submitting his homework, asking questions and giving answers.

The format to blend the affective and cognitive standards was the use of small group counseling. Affectively, this allowed students a forum for discussions, reflections, hands-on applications and a view of a commonality with other students. Evidential results were the many self-evaluative handouts utilized in the small

counseling group sessions. Although plagued with many behavioral issues and scheduling the participants were able to reflect and express their changes by looking at themselves affectively.

PART TWO		Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
*Overall, this group work was			<input checked="" type="checkbox"/>			
Very helpful			<input checked="" type="checkbox"/>			
Helpful		<input checked="" type="checkbox"/>				
Okay				<input checked="" type="checkbox"/>		
Not helpful					<input checked="" type="checkbox"/>	
In this group I felt <u>Good</u>						
Because <u>in the Group because Everyone can talk about how there week is going and</u>						
Important things I learned are <u>how to set goals and make plans to reach those goals</u>						
The most helpful part of this group was <u>talking about the week you had and how everyone helps you on making goals.</u>						
Something I have improved in is <u>Completing and submit of My Homework asking questions and giving answers.</u>						
I would/would not recommend this group to my friends because <u>Everyone listens to what you have to say and they can help you make Goals or make a plan to achive those Goals.</u>						
Other comments:						

Figure 4.6 Sample of Final Evaluation of Small Group Work – Blending Conceptual and Affective Standards – Participant Frank

4.11 Summary

Standards blending can be effective in a small group counseling setting in making conceptual change in student achievement. Being in a small counseling group allowed the participants many opportunities to focus on life skills extracted from and examined in their personal-social thinking; how to improve their academics and to reflect on their educational experiences, all to gain the maximum from their educational setting.

Notable were the students participating in establishing their own time management skills as being an essential life skill which can also be seen in the framework of mathematics. This participation was done through the use of the Self-Management Journal (SMJ) where the participants laid out daily activities on charts and graphs of the Life Management scale and Student Success Skills Self-Evaluation instruments. During the small counseling group sessions they could document and analyze their own data. Frank shared from his Life Management Scale a week where he was mostly good or great at his weekly performance in managing his social time, stress level, physical activity, mood and energy. He was also able to express that he could still continue to improve in his mathematics class.

The small group counseling format provided the participants with an opportunity to focus on their academic work, in particular, testing strategies and their behavioral approach to learning mathematics. They were able to share and discuss questions that could not be answered during a classroom lesson. In particular, using the Test Taking Strategies survey helped the participant understand how their behavior affected their response to mathematic tests. Davida realized on her survey that it would be best that when taking regular class mathematics tests that she review it to understand the mistakes that she had made. As well, she realized that she often rushed to finish quickly and that she would make a change in that behavior.

The participants taking part in this research study expressed their views in many of their reflections on their emotional reactions pertaining to their academic work in this atypical classroom setting where the focus was on the affective domain.

- Davida stated, *"I would recommend this group to my friends because it can help us work together."*
- Dawnise stated, *"Of the things I've learned about math and my feelings is a lot of division and I feel good."*
- Miguel in response about his life management, *"There is a connection between my performances and my self-reflection, I would get more sleep to improve my social skills and eating habits."*
- Barnard wrote that since being in the group, *"I learned more about math."*
- Nicole expressed the something that she had improved in was *"math, division, multiplication and much more."*
- William shared his opinion that in this group I felt *"good about myself because we talk about what we've done or what we did, and our grades. The important things I learned are setting goals for yourself and trying hard about anything you do. The most important part of this group was setting goals for being in this group. The something I have improved in is going to sleep on time."*
- Frank wrote, *"Being in the group I felt good and positive that I could do things and improve. The things I will remember the most is the fun we had talking about how our week went. If asked to be in this group again I would say yes because it was a fun experience. Your feelings and talking about different things. Being successful in math is a good feeling because it feels good to be the best math student in the class. I have learned a lot of things like fractions, division and lots more."* Further, Frank expressed in reaction to the question of what made a big difference in how you rated your performance comparing week to week, *"the difference is when I studies, I got a "B" instead of an "F".* As well, he realized that there was always room for improvement by *"doing things ahead of time so that I would not forget."* Also, *"I can improve my concentration by stop playing too many games."*

4.12 Conclusion

The data achieved from this research study was discussed in this chapter based on the school counselor's observations/notes, parent and teacher observations, various inventories administered to the participants and the findings of this study's using the research sub-questions was used. The research sub-questions guided the course of action of the research study by focusing on affective interventions of time management, study skills, goal setting, testing taking strategies, stress reduction, self-management and self-reflections. It was intended that the students would understand how such personal attributes and life application skills were found in the mathematical attributes of measurement, numbers and data analysis, and affected their academic achievement. The data also included the school counselor's notes along with students (participants), teachers and parental responses on questionnaires and interviews.

The affective standards and objectives employed by the school counselor in tandem with cognitive standards of mathematics was an attempt to make conceptual changes within the special population of at-risk students using the small counseling group setting which allowed each student to become aware of how their attitudes, behavior, and self-concept affected their ability to achieve academically in mathematics and how this improvement is relative to their pathway of school to college and careers.

CHAPTER 5

Discussion

Let's not just meet kids where they are academically. Let's also meet them where they are emotionally. (Ginsburg, 2012)

5.1 Introduction

This chapter provides a summary of the findings and interpretations and discusses the limitations and recommendations. Included are references to the many figures, charts and tables found in previous chapters. The findings acquired from qualitative data are presented as they relate to the sub-questions in this research study.

5.2 Purpose

The purpose of this research study was sparked by the challenge posed by the American School Counselors Association (ASCA). In their National Model (2003), ASCA suggested that developmental classroom-based interventions led by school counselors could have an advantageous effect on student achievement in academic domains. Therefore, they challenged school counselors to begin documenting the actual impact or outcomes of these utilized classroom-based interventions and contribute to the school counseling research literature (Poynton, Carlson, Hoper, & Carey, 2008). Brigman and Campbell (2003) provided just such of an example with research literature that examined the combination of curriculum-based and group-based intervention which focused on cognitive and meta-cognitive skills, social skills and self-management skill. As such impacting with measurable work prompted this counseling intervention for at-risk fifth grade students using a small counseling group setting to be an inroad into having an impact on academic achievement.

The main question of this research study was to enquire what would happen when a school counselor attempted to blend affective and cognitive standards for conceptual change in at-risk fifth graders: *Will the outcome of blending of affective domain standard with cognitive domain standards of mathematics solicit conceptual change in at-risk fifth grade students?*

In essence, could the contributions of personal-social objectives when applied alongside academic objectives, in particular Mathematics, contribute to the academic success of upper grade elementary students who fit within the characteristics of being at-risk. The efforts were to examine the possible outcomes of a school counselor who blended cognitive and affective skills in order to contribute to student academic achievement.

As in Brigman and Campbell's (2003) primary study, this research study focused on helping the selected students/participants to become self-managers and build on their social skills. Further, the study was designed to help each student to understand that what they are learning in school could be applied to their daily living as well as having a positive effect on their career as students with a future of transitioning from school-to-work. The guiding sub-questions subsequently became:

1. Will students understand the relationship between knowledge gained in mathematics in school with daily life application?
2. Will students utilize and understand the use of measurement?
3. Will students demonstrate improvement in their organizational skills?
4. Will students recognize how personal attitudes and feelings affect their behavior?

On a broader level, this research also was an attempt to amplify and modify the views and expectations of most administrators, parents, teachers, and community stakeholders of the role and duties of a school counselor. Gayle (2008) has pointed out research showing the expected role of school counselors was increasingly focused on non-counseling and administrative duties. The ASCA National Model (2003), as a catalyst to change this perception, has sought to encourage more of a comprehensive approach. The comprehensive approach prescribes direct services to students through academic, career awareness, and

personal social-emotional objectives in seeking improvement in student achievement.

The struggle in this effort to make a concerted change in the perception of the role of the school counselor proved to be difficult due to a strong social concern of demonstrating educators' accountability in achieving student academic success and coming at a time of national economical duress of episodic unemployment, financially crippled banking and housing collapse. More close to this research study was the manipulation of job roles to accommodate the many losses occurring in the field of education and, in particular, the educational settings of this research study. Griffin & Farris (2010) noted that the recent economic crisis had caused the cutting of school counselor positions and forced schools to decrease or eliminate other services that were once available to students through school counseling services.

5.3 Findings and Interpretations

This research study used small counseling groups to initiate the school counselor's intervention and was guided by four sub-questions. During the small counseling group, this research study used qualitative research methods through documentation from school counselor's observations/notes, parent and teacher observations and information of personal social-emotional instruments. The various instruments were meant to not only help students cognitively in improving their academic work in mathematics but to allow them an opportunity to experience an inner self investigation, understand how to set short and long term goals, and to have a hands-on awareness of self-monitoring skills. The affective instruments included Pre/post Teacher Inventory, Student Success Skills Self-Evaluation, Life Management Scale Test Yourself on Test Anxiety, Test-Taking Strategies Pre/Posttest, Getting to Know Me, and Student Inventory.

Developing the groups required much manipulation and rearranging due to assessing working behaviors of the participants and the necessities of other duties of the school counselor. After three group sessions of adjusting to the students' differences and their like scheduling, two groups of participants were established as noted in Table 3.2.

5.4 Research Question: *Will the outcome of blending of affective domain standards with cognitive domain standards of mathematics solicit conceptual change in at-risk fifth grade students?*

5.4.1 Sub-Questions

Question one: *Will students understand the relationship between knowledge gained in mathematics in school with daily life application?*

This question focused on the school counseling objective to help students acquire attitudes, knowledge and skills that contribute to effective learning in school and across their life span. Keeping in mind Zirbel's (2005) suggestion of seeking conceptual change, attempts were made to hook the participants through bridging old thoughts with new ones and finding connections with both the new and old thoughts. The small group setting of the pro-social concept of group discussions, focusing on self-management requirements, and discussing the pros and cons of the actions as practice of constructive thinking was utilized. The inventory of Final Evaluation of Small Group Work – Blending Conceptual and Affective Standards depicted the outcomes. It consisted of a scale of strongly agree to strongly disagree with a moderate of not sure. The participants concluded with five out of seven strongly agreeing being able to associate the vocabulary and functions of mathematics with everyday life tools expressed through personal-social skills; one participant agreed and one was not sure (See Table 4.4 and Table 4.5).

The participants strongly agreed with knowing that mathematics was a part of everyday life and that they had used those skills to solve life problems. An example can be surmised in Miguel's expressions on the Final Evaluation of Small Group Work – Blending Conceptual and Affective Standards instrument. He acknowledged that he strongly agreed that setting goals was an important skill that required him knowing how to make a plan and take action using at least three steps. He also agreed that his success in school would impact him in his adult life by utilizing the learned skills so that he could try a different strategy when the one he had used was not working. Further, he recognized that goal setting could improve his self-confidence. However, his unsure-ness was evident in him not having trust in

his selected strategies along with not taking action on the goals that he has set (See Table 4.4).

The results supports literature such as purported by the NCTM Principles of Standards (NCTM, 2012) for schools to seek higher mathematical standards by requiring students to think and reason mathematically in acquiring a useful base of mathematical knowledge and skills needed in any walk of life. Graham, Harris, and Reid (1992) concurs in helping at-risk students to apply self-regulating, self-monitoring, and self-instructing of selected strategies through self-talking, setting goals, keeping on task, remembering to use a specific strategy, monitoring their own progress and frequently self-checking their progress.

Question Two: *Will students utilize and understand the use of measurement?*

This sub-question allowed participants to become more organized through weekly measuring of their progress using the Life Management Scale, the Student Management Journal Checklist along with the use of the Goals and Actions chart within their Student Management Journal. The findings reflected conflicting results which required considerable effort from the school counselor and the small counseling group. As shown in chapter 4, some of the participants were able to document within their SMJ with fidelity while others needed help. The participants had received instructional information during the group sessions of how charting and graphing related to what they had learned in their mathematics studies of measurement (See Table 4.2) but many of them needed working time within the small counseling group sessions to actually enter their data.

Several of the participants took pride in bringing their Student Management Journal (SMJ) to each small group counseling session but not all, particularly the male participants in both groups. The most often excuse used was “I left it.” This problem was resolved when the student could go back to their classroom and retrieve it. However such action interfered with the time flow of the group session.

The SMJ did allow the participants to focus on their daily journaling of self-reflections and reflections of classroom lessons, goals and actions, and counseling sessions attendance, homework agenda (to be signed daily by parent/guardian) (See Chart 3.1). They completed their Life Management Scale within the group

session. They were able to verbalize and chart their performances using a scale of ranging from a point of view of “not so good” to “great”. The moderate reactions were “kind of good” and “good”. This instrument worked well when the participants first gave thought to their week and checked off their performance rate and then took part in volunteering their results. It was time-consuming and not well received by the participants in either group when they had to express their thoughts by writing in the fill-in section of the scale. The groups agreed to make that an individual choice to fill out that portion.

The Goals and Actions inventory was more difficult to chart by the participants because it required verification of the accomplishments of their goals required by a signature of a parent and the teachers. This meant that the participant needed to initiate requesting input from the adults to get weekly results-reflections from their parents and mathematics teachers. Most of the participants were unable to accomplish this task. They reported that either adult was too busy, did not want to do it, forgot, or that the participant was intimidated by the adult and chose not to follow through. Majority of the results obtained necessitated the school counselor’s intervention as an advocate and meeting or speaking with the adults. Also, the participants reviewed and judged their week’s goals and actions during the group sessions. The participants had discussed within the small group their goals and proposed the necessary actions to achieve the weekly goal prior to the documented week.

The participants in both groups were able to comprehend the use of measurement in their daily life through charting and graphing, how it helped them to look back and self-reflect and that it provided a view of their week through active verbal participation. However, this knowledge did not encourage them to self-initiative utilizing these instruments. It is the interpretation of the school counselor that this was due to the daunting physical requirement of recording and documenting their personal reactions and weekly performances. Further, the school counselor surmised this through observing the reluctance of the participants to complete the instruments on their own.

Question Three: *Will students demonstrate improvement in their organizational skills?*

The use of strategies to help students understand the relationship of measurement in real life applications was also an effort to help improve their organizational skills. It was a daunting task for many of the participants in this research similar to incidents noted in many research studies (Davis 2001; Sinatra, Brem & Evans, 2008). As Cahill (2008) pointed out in her study of an at-risk student, organizational skills play a key role in students becoming self-regulators and knowledgeable of how being a self-regulator could help with the completion of daily assignments and participation in daily classroom activities. Lucariello (2012), as well, points out that learning can only occur if there is a conceptual change. This intervention of blending the affective and cognitive standards attempted to demonstrate how to use skills being taught in mathematics to be successful not only academically, i.e. remembering to bring school supplies to school, but to become cognizant of a personal-social skill applicable throughout their daily life.

The findings from the Final Evaluation of Small Counseling Group Work about the use of organizational skills discussed during group pointed out evidential change in some of the ways in which being organized did affect their academic outcomes. The observations came from the responses given by the parents and teachers under Self-Management and Organization and under “What the Child Thinks about School” found in the Parent and Teacher Inventory (See Table 4.6). The majority of the participants, their teachers and parents either strongly agreed or agreed with each other on such attributes as having and submitting homework, having school materials and having assignments.

Participants Barnard, Dawnise and Nicole and the parents and teachers, however, were in disagreement (See Table 4. 5). The three participants thought that they were more organized than viewed by their parents or teacher. It is apparent that these students could benefit from more intervention as suggested by Davis (2001) and Treagust and Duit (2008, p. 2) to delve deeper into the students' internal preconceptions or misconceptions and apply either more or different techniques to help change some of their misconceptions.

Question Four: *Will students recognize how personal attitudes and feelings affect behavior?*

Working within a small counseling group allowed the participants opportunity to look inward, hear experiences of others, and to reflect on and weigh the strategies endemic to each individual. The importance of this research question was to focus on the affective domain (See Table 4.7) of each participant to help them to become cognizant of personal-social attributes, i.e., their motivation or attitude towards school that affected their progress in school. This proved to be challenging for many of the participants. Evidential to the research of Savitz-Romer and Bufford (2012), this age group lacked impulse control. However, once they understood the concept along with what and how this affected their academics, they became better self-monitors and more capable of self-regulating their behavior.

The instruments used to focus and assess the participants' attitudes and feelings included several self-evaluation handouts including Student Success Skills Self-Evaluation and Life Management Scale. As well, the participants worked with ways to relieve stress and anxiety using surveys, i.e., Test Taking Strategies Survey and the Test Yourself on Test Anxiety along with physical activities (i.e., breathing techniques).

The results showed participants becoming more cognizant of their behaviors. They began to think closely about them and became capable of expressing their reactions. Some of their reactions included ways to resolve their negative behaviors, question their choices and to put a plan into action to make a change. Participant Davida exemplified such in her reflections on the Life Management Scale (See Figure 4.6) where she saw a connection between the different performances that was shown in her self-rating: *"all of the stress can make a difference and when I exercise I can calm down."*

The findings in this research study demonstrated what happened when a school counselor blended affective and cognitive domains to achieve conceptual change in mathematics in seven at-risk fifth graders. The participants were able to associate what they experienced in the small counseling group sessions that what

they learned in school, particularly mathematics, can be applicable to their daily living. They were able to express themselves verbally and in writing, discuss the viability of choices, plan and put into action their choices and became cognizant of ways to become self-managers.

Important to their conceptual change was in both affective and cognitive domains in keeping with the varied research indicating that students who are at-risk needed to be taught how to be self-managers. In comparison to their counterpart of more successful students they were more powerless to be self-directed or to understand what things that must be done to improve their performance academically and emotionally in order to be academically successful. This research study provided just such an opportunity. Many of the participants' final reflections indicated that they did garner ways to improve their performance, their teachers and parents noted these improvements, and each of the participants did show improvement in their academics (See example in Figure 4.7).

The purpose of this research began with the school counselor wanting to meet the call of the American School Counselor Association to provide comprehensive research of the transforming role of the school counselor. Overall, it is believed that this research study contributes to the transitioning role of the school counselor providing data of a research based intervention to assist in student achievement through the utilization of a comprehensive school counseling program; demonstrated accountability of conceptual change; the provision of literature reflective of at-risk students, affective (personal-social) and cognitive (mathematics) domains ; the blending of cognitive and affective standards, and the utilization of the small counseling group format.

Much was achieved with the participants within the school counseling group. However, it should be pointed out that it came with much difficulty from administrators', teachers', parents', and other educational stakeholders' lack of understanding of the role of the school counselor. Developing, running, maintaining, and having successful outcomes from small group counseling sessions required time and dedication. As the research indicated, the role of the school counselor does not allow an acceptable amount of time and understanding of what efforts that must be put forth to make a considerable change in the participating students. There are

many problems that frame the misunderstanding of the school counselor's role - school systems call for the performance of more administrative duties, teachers are pressed to fill their students' school time with their subject areas and are unwilling to allow time away for weekly sessions, parents are not sure of how their involvement makes a difference and school counselors are conflicted as to how school counseling can yield tangible data to demonstrate student achievement.

5.5 Recommendations

Accountability, as expected by our 21st century stakeholders, has for the most part eluded the professional school counselor who has traditionally focused on a support role, addressing individual issues, taken on administrative duties, and been removed from the instructional arena of schools (Stone & Dahir, 2004). But there are inroads to promoting better school counselor visibility and providing a more active role in the academic achievement of students. Consequently, it is important to employ innovative strategies to achieve optimal educational productivity (Dorman, 2002).

- As with Brigman and Campbell (2003), there should be consideration of the small counseling group as being the "most promising intervention". The utilization of the small-group format should be encouraged as a method of sustaining student academic achievement and positive attitudes.

Overall, Brigman and Campbell (2003) strongly suggest that school counselors should inevitably identify research-based practices and employ evidence-based interventions.

- Full opportunity should be given to adherence to the recommendation of the Association of School Counselors Association (ASCA, 2005), the utilization of a comprehensive school counseling program and the fact that the school counselor has been trained to identify and alleviate the cognitive, emotional, social, and behavioral barriers to student success (Galaski & Akos, 2004; Hines & Fields, 2004; Schellenberg & Grothaus, 2009).
- Further recommendations include the utilization of the school counselor as a change agent through the use of the small counseling group format and

support by administrators giving equal importance to the affective needs of a student with the cognitive need to achieve student success students.

- Bozeday (2010) notes that extensive research has concluded that goal-directed behaviors, organizational skills, time management, self-regulation (including self-monitoring), self-awareness, strategic thinking, problem-solving and cognitive flexibility are essential and applicable to academic pursuits and life-long skills; such as successfully existing in our media-driven and multi-tasking twenty-first century.
- Meltzer (2007) reinforces the importance of these how-to skills but notes that such skills are being not taught as part of the curriculum. The classroom instruction is focused on academic contents, test preparation or other related
- McRel (retrieved 2012) has found through gained knowledge from field tested, research-based products that in mathematics instruction, there should be a combination of building self-esteem, social contexts, peer modeling, meaningful problems to solve, and strategy instruction for it appears to be effective. It is recommended to include social emotional strategies as part of the instructional focus when seeking student achievement.

This is particularly advantageous for students who are at-risk, as projected in this study, because they are students who are frustrated and angry, have poor behavioral characteristics, weak academic strengths and often quick to state their dislike for school. Slavin and Madden (1989) concurs in their defining at-risk students generally as those who are at risk for school failure; being in a position of high possibility of coming to a point in their lives when they may make the decision to not continue school.

- Avant-garde or new interventions are essential and recommendations are to provide an arena of holistic approaches for conceptual change and student success will be the results. The program evaluation of this research study of blending cognitive and affective standards is trendy and consistent in school counselors striving for accountability in documenting outcome and process evaluations. Such action answers the call for more research that

demonstrates evidence over effort (Schellenberg, 2008). The challenge has always been the limited engagement of program evaluations that could assist in the accountability of a school counseling program focused on student achievement.

- The program evaluation of this research study of blending cognitive and affective standards is trendy and consistent in school counselors striving for accountability in documenting outcome and process evaluations. Such action answers the call for more research that demonstrates evidence over effort (Schellenberg, 2008). The challenge has always been the limited engagement of program evaluations that could assist in the accountability of a school counseling program focused on student achievement.

Schellenberg (2008), for example, has introduced and contributed a practical alignment approach and data reporting tool for implementing accountable school counseling programs. This electronic data reporting system approach, *School Counseling Plan for Effectiveness (SCOPE)* and *School Counseling Report of Effectiveness (SCORE)*, streamlines the action process of data collecting, analysis and results reporting.

- This author's use of Brigman and Goodman's (2001) Student Success Skills Self-evaluation followed the trend of using self-evaluation when blending cognitive and affective standards in a small counseling group setting. Effectively, the self-evaluation became a tool that created empirical data for the school counseling outcome research. Using the Likert Scale as a method of measurement became a way to report the gains of the research study participants' academic and attitudinal behavior.

As new trends and themes continue to come forward, there is a positive outlook towards school counselors stepping up to fulfill the primary mission of the American School Counselor Association. School counselors should be advocates improving academic achievement through the building of a comprehensive school counseling program that meets accountability through planning, data collecting and reporting. Further, school counselors should possess the knowledge, abilities, skills and attitudes necessary to plan, organize, implement and evaluate a

comprehensive, developmental, results-based school counseling program that aligns with the competencies of an accredited national model (ASCA, 2003).

5.6 Limitations

This action research within this case study had many limitations. Most were due to the role of the school counselor not being definitive but flexible to the life of the school's daily flow and statewide academic requirements under the auspices of the school principal or administration. Also, limitations of teacher discretion were indicated by the instability of the group membership and the responsibilities of the participants due to teachers' concern with student academic progress under their tutelage which may affect them financially. Finally, a limitation occurred due to a lack of standardized assessments or coordinating assessments that were aligned with academic subjects within the school curriculum.

Many of the limitation experienced by the author can addressed with taking a more leadership role in the

5.6.1 *Flexibility of the School Counselor's Role*

The common job description of a school counselor as delineated within the Florida's School Counseling and Guidance Framework (2004, p. 22) expresses what should be included within a comprehensive school counseling program; Program Management, Guidance, Counseling, Consultation and Referral, Curriculum, Coordination and Professionalism. In accordance, the role of the school counselor is expressed to fall to the many priorities and discretions of the school's administration in respect to the situations or activities specific to the school. The following limitations were indicative of the comprehensive program's job requirements applied during this research study:

- The school counselor served as a substitute administrator in emergencies which required a focus "on the moment". Such administration included emergency parental concerns, student needs, outside agencies, and district or regional needs.

- Other administrative duties required overseeing pertinent school wide programs such as coordination of the gifted program (identifying and maintenance), grant writing, school wide initiatives (i.e., School Greening Challenge), community relations and honor roll.
- Coordination and assisting with school wide programs of attendance, bullying and harassment, career education, character development and holistic health and wellness care (dental care, vision and hearing).
- Providing referral service information for parents (i.e., divorce issues, grief), teachers (i.e., students in need of anger management, retentions), administration (i.e., suspended students) and outside services (i.e., Mental Health Coordinator).
- Providing counseling and consultation services for teachers or parents.
- Handling conflicting schedules within an uninterruptable schedule of core academic subjects; reading, language arts, mathematics, science/social studies and physical education; in-school tutoring or other teacher/student related activity related to preparation for state comprehensive testing; and working with students enrolled within the expressive arts magnet program.

5.6.2 *Limitations in the Small Counseling Group*

Limitations were notable in the participants taking part in this research study with the many fluctuations of student membership; only 7 out of 11 students remained in attendance. The original list of at-risk students contained students in first through fifth grade (47 students; 4 from first, 11 from second, 5 from third, 11 from fourth and 16 from fifth) but due to many factors such as behavior, scheduling conflicts and available school counseling service provision time narrowed the count to a possibility of 11 students as participants.

This limitation of this group of participants was exacerbated when the students were required to take a more active role in specific activities important to group work, such as; student attendance, student acting as liaison between teacher and/or parents when returning forms, student completion of specific forms or group assigned homework (completion of pre-group forms). As well, each student's

individual behavioral problems, i.e., willing to take turns, anger management, affected the flow of the group work.

One of the main factors that this researcher was aware of and adhered to was addressing what the participants would need in approaching their learning of mathematics (i.e., taking a different approach as small group, visual clues). However, what was not fully considered was the extent of the participants' disabilities and the amount of time available to make a more of a conceptual difference. This was evident when the students were required to take a more active role in specific activities important to group work, such as; student attendance, student acting as liaison between teacher and/or parents when returning forms, student completion of specific forms or group assigned homework (completion of pre-group forms). As well, each student's individual behavioral problems, i.e., willing to take turns, anger management, affected the flow of the group work.

Improvement to the aforementioned limitations can improve with a better understanding of the contributing factors that is innate in the participants per the small counseling group. Common to the participants in this study was their lacking in organizational skills which was tantamount to their disability. Simply put, their "plate was overflowing." Understanding this would have compelled the researcher to prioritize and behaviorally graduate the task needed for this intervention. The adding on of tasks would have come as the participant demonstrated accomplishments.

Grime (2010) suggested becoming cognizance of the factors affecting participants similar to the ones in this research study (learning disability and attention deficit); brain development in reference to the age of participants, psychological disorders and physical handicaps (such as, fine-motor skills causing timely and exhausting task as documenting reflections).

5.6.3 Limitations in Assessment

Limitations also lay with aligning assessments and comparing the results of this small group intervention. There were no standardized assessments for social emotional behavior or intervention and the researchers used and developed instruments that were available to her in her normal work as a counselor. These

instruments, many of which are widely used by counselors in Florida schools, do not have reliability or validity measures from large samples. As well, the findings are also limited in the generalizing capability to other students within the same grade level and inability to be generalized to other students of similar age or ability level due to the specificity of the intervention content and method of delivery by the researcher. The selection or specialty of the participating students were identified as at-risk due to their poor academic achievement displaying challenging behaviors such as lack of motivation, personal frustrations with their school life, poor parental involvement, anger and poor self-esteem.

The findings were also limited due to the unavailability of a control group to use for comparison.

5.7 Summary and Conclusion

As shown by this study, within limitations, the school counselor's direct contribution to the critical area of student achievement can be accomplished. This qualitative research study that sought to answer whether or not the outcome of blending affective domain standards with cognitive domain standards of mathematics could solicit conceptual change in at-risk fifth grade students. The outcome demonstrated this as a positive opportunity. Would the school counseling be able to contribute to academic achievement? As described in this thesis, the school counselor can contribute to student achievement by focusing on students' personal-social attributes, employ effort to make conceptual change, relate academic work to daily life living, and help students who are at risk to become self-manager and self-regulators (King & Sears 2008). The literature asserts that without concerted efforts to make conceptual change and empower at-risk students with the ability to self-monitor themselves they will continue to face academic achievement difficulty in comparison to their more successful counterpart peers who are not constrained with at-risk characteristics.

Congruent to Savitz-Romer and Bufford (2012) research with at-risk students of similar ages as the participants in this research study there would be developmental delay noticeable with impulse control affecting organizational, time

management and planning skills. Very apparent was with the participants' poor success in organizational skills. The organizational skills of seven of the final participants remain in need of further intervention in keeping with Savitz-Romer and Bufford's (2012) opinion that learning is an ongoing process.

Recommendations to the educational community stakeholders begins first to participate in the on-going learning processes of all students but to be cognizant that some students, i.e. at-risk students, better benefit from additional interventions other than academic such as helping them plan and prepare for their future, build their future aspirations, share information, help them become self-managers and assist them with the many step involved in reaching their future goals (Savitz-Romer and Bufford, 2012).

Secondly, remembering that students are human beings and education should focus on the well-being of the whole child. This will require adherence to the suggestion of the American School Counselors Association (ASCA) to emphasize that school counselors should first be recognized as contributing leaders and to not work in isolation but in cooperation with the many stakeholders (i.e., students, teachers, parents) involved in implementing programs that meet and support the needs of all students. Low, Lomax, Jackson and Nelson (2004) suggest that student achievement should emphasize affective or emotional learning as just much as on academic or cognitive learning. Academic testing as a way to achieve accountability is only a narrow attempt in closing the gaps in student achievement.

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Appendix A - Instrumentation

Appendix A.1 Self-Management Journal Checklist

Week	Attendance	Homework Agenda Sign Off		Weekly Journaling	Goals/ Actions	Week Grade	Life Management Scale
		PARENT	TEACHER				
Pre- Group							
1							
2							
3							
4							
5							
6							
7							
8							
9							
Post Group							

In my journal, I will do these things:

1. Write in my journal everyday.
2. Date each entry.
3. Write about how I FELT in my MATH class.
4. Write about any problems that I had
5. Write about how I solved the problems.

Appendix A.2 Parent/Teacher Inventory

Student Name _____ Date _____

PARENT/GUARDIAN - TEACHER INVENTORY

Directions: Complete the following questions by circling the answer that you feel correctly describes the child's thoughts, feelings, or behavior.

	Strongly Agree	Agree	Disagree	Strongly Disagree
WHAT CHILD THINKS ABOUT HIM/HER SELF	4	3	2	1
He/she like who she/he is.	4	3	2	1
He/she is an important and special person.	4	3	2	1
He/she can handle it well when she/he makes a mistake.	4	3	2	1
He/she has the courage to try new things.	4	3	2	1
He/she can handle it well when she/he is criticized or teased by others.	4	3	2	1
He/she can handle it even if things are difficult or hard.	4	3	2	1
He/she can manage both pleasant & unpleasant feelings well.	4	3	2	1
WHAT CHILD THINK ABOUT SELF and OTHERS	4	3	2	1
He/she gets along well with others.	4	3	2	1
Others are interested in what he/she has to say.	4	3	2	1
He/she knows how to make and keep friends.	4	3	2	1
He/she is a good friend to others.	4	3	2	1
He/she handles friendship problems well.	4	3	2	1
He/she gets along well with mom.	4	3	2	1
He/she gets along well with dad.	4	3	2	1
He/she gets along well with his/her brothers/sisters.	4	3	2	1
WHAT CHILD THINK ABOUT SCHOOL	4	3	2	1
He/she starts school work as soon as assigned.	4	3	2	1
He/she works hard and finishes school assignments.	4	3	2	1
He/she completes homework.	4	3	2	1
He/she has materials needed to do his/her work.	4	3	2	1
He/she participates in class discussions.	4	3	2	1
He/she behaves in class – following the rules.	4	3	2	1
He/she stays focused and listens carefully in class.	4	3	2	1
He/she likes school.	4	3	2	1
He/she I like my teachers.	4	3	2	1
He/she feels the teachers him/her.	4	3	2	1
He/she feels school is a friendly place.	4	3	2	1

- What do you see as the needs of the child? _____


 - What are the child's strengths? _____

- Weaknesses? _____

Appendix A.3 Student Success Skills Self-Evaluation

Name/Id _____ Teacher _____ Date _____

Student Success Skills Self-Evaluation

Directions: The following skills are all important for doing well I school. Rate yourself on each item. Use a 1-5 scale, in which 5 is the highest/best and 1 is the lowest/worst. 

1. I go to class with the materials I need.	1	2	3	4	5
2. I read and understand all assignments	1	2	3	4	5
3. I have a folder or notebook for each class to help me stay organized.	1	2	3	4	5
4. I turn in all work on time — no zeros,	1	2	3	4	5
5. I keep track of my grades. I know how my teacher decides the final grade.	1	2	3	4	5
6. I listen and focus during class. I usually understand what is being taught.	1	2	3	4	5
7. I ask questions when I do not understand what is being taught. I know when and how to ask questions.	1	2	3	4	5
8. I know what to study for tests and what is expected for reports. I plan ahead for both to avoid last-minute cramming.	1	2	3	4	5
9. I have at least one study buddy in each class.	1	2	3	4	5
10. I work well in pairs or small groups with others in class.	1	2	3	4	5

My top three strengths from the list above are:

- _____
- _____
- _____

The areas I most want to improve are:

- _____
- _____

Appendix A.4 Life Management Scale

Figure 3.3 Life Management Scale

Name/ID # _____ Teacher _____ Date _____

LIFE MANAGEMENT SCALE



Directions: Rate yourself on the nine items below on a scale from 1-5, where 5 is the highest or best rating and 1 is the lowest or worst rating.

Your Performance	Not So Good	Kind of Good	Good	GREAT!
School for me this past week was				
My fun or social time this past week was				
My getting along with my teachers this past week was				
The amount of stress I felt this past week was				
The amount of exercise I got this past week was				
The number of hours I got to sleep this past week was				
My eating habits this past week was				
The amount of energy I had this past week was				
How I have felt or my mood this past week was				

- What made a big difference in how you rated your performance this week compared to last week?

- There is always room for improvement in everyone, what will you change to improve your rating score for next week?

- Is there a connection between any of the different performances that made a difference in your rating score?

- Was there a difference between your performance in school and with your friends?

4. Test Yourself on Test Anxiety (National Center for Youth Issues, Chattanooga, TN)

has 3 questions with varied responses: yes/no, personal/social choices, and a rating

Appendix A.5 Test Yourself on Test Anxiety

Figure 3.4 Testing Yourself on Test Anxiety

Name _____

Date _____

Test Yourself on Test Anxiety

Do you get nervous and fearful just before a test? ☐ yes ☐ no

Which of the following are true for you? I get nervous about tests because:

- ☐ I don't know enough.
- ☐ I just panic even though I usually make good grades in school.
- ☐ I haven't studied or prepared.
- ☐ I always worry about things.
- ☐ I'm afraid of disappointing others.
- ☐ I'm afraid of embarrassing myself.

How anxious are you?

Put a number in each blank—1 for never, 2 for sometimes, or 3 for often.

- _____ Right before a test, I have sweaty palms, shaky hands, or other visible signs of nervousness.
- _____ I get butterflies in my stomach before a test.
- _____ I feel queasy or sick to my stomach before a test.
- _____ I look at the test and feel that I don't know any of the answers.
- _____ During a test, my mind goes blank and I forget things.
- _____ I have trouble sleeping well the night before a test.
- _____ I make careless mistakes like skipping questions or putting answers in the wrong places.
- _____ I have difficulty choosing answers.
- _____ I remember the answers after the test is over.
- _____ I panic at the thought of taking a test.

Add up your score. Scores will range from 10 to 30. A low score (10-15 points) means that you do not suffer from test anxiety. In fact, if your score was close to 10, a little more anxiety may be helpful to keep you focused and get your blood flowing during a test. Scores between 16 and 21 indicate a normal level of test anxiety. Scores above 22 suggest that you have a high level of test anxiety. You may need some help with test taking.

* Adapted from questionnaire by Nist and Diehl (1990), and The Center for Advancement of Learning, Muskingum College, 1998.

Appendix A.6 Test Taking Strategies

Name/ID _____

Teacher _____

Date _____

TEST TAKING STRATEGIES SURVEY

True or False



Directions: Read each question carefully and answer honestly. Place a T for True or F for False in the BEFORE column. The AFTER column will filled-in after the group session.

QUESTIONS	BEFORE	AFTER
1. I have a positive attitude throughout a test.		
2. I stay relaxed during a test.		
3. I keep my eyes on my own paper so no one thinks that I am cheating.		
4. When I first get my test, I begin working immediately.		
5. I eat a good meal before the test.		
6. After I receive my test back, I review it to understand the mistakes I made		
7. I read each question carefully.		
8. I look for keywords.		
9. I circle keywords, if I am allowed to write on the test.		
10. When I don't understand a question, I ask the teacher for help.		
11. I write all my answer clearly and carefully.		
12. When I don't know an answer, I skip it and come back to it later.		
13. I worry that other students will finish before I do.		
14. When I finish with time left, I go back and look over my test.		
15. I double check to make sure that I have my first and last name on the test.		
16. Before I take a test, I make sure that I do all of my homework and complete all my class work so that I will be ready.		
17. I do the hardest problems first.		
18. I get a good night sleep before the test.		
19. I set my alarm and have a backup alarm to make sure that I get up at the right time.		
20. I wait to go to the bathroom during a test.		
21. If allowed, I ask the teacher questions to make sure that I understand things that I was not sure of.		
22. I rush to get finished quickly.		
23. If the teacher reviews the test in class, I take notes on what the teacher wanted for an answer on the questions that I got wrong.		
24. If I am not satisfied with my grade, I will ask my teacher for extra credit or for a make-up test.		
25. I trust myself to do well.		

jmd 2009

Appendix A.7 Getting to Know Me


Figure 3.6 Getting To Know Me

GETTING TO KNOW ME

NAME/ID# _____ Teacher _____ Date _____


The people in my family are:

One thing I like about myself is:




One thing I want to change about myself is:

The things I like best at school are:




In school, I wish I could change:

The things I like best at home are:



At home, I wish I could change:

About my friends, I want to tell you:



Appendix A.8 Student Inventory

Figure 3.7 Student Inventory

Name/ID # _____ Teacher _____ Date _____

STUDENT INVENTORY

Directions: Complete the following questions by circling the answer that you feel correctly describes your thoughts, feelings, or behavior.

	Strongly Agree	Agree	Disagree	Strongly Disagree
WHAT I THINK ABOUT ME	4	3	2	1
I like who I am.	4	3	2	1
I am an important and special person.	4	3	2	1
I can handle it well when I make a mistake.	4	3	2	1
I have the courage to try new things.	4	3	2	1
I can handle it well if I get criticized or teased by others.	4	3	2	1
I can handle it even if things are difficult or hard.	4	3	2	1
I manage both my pleasant & unpleasant feelings well.	4	3	2	1
WHAT I THINK ABOUT ME and OTHERS	4	3	2	1
I get along well with others.	4	3	2	1
Others are interested in what I have to say.	4	3	2	1
I know how to make and keep friends.	4	3	2	1
I am a good friend to others.	4	3	2	1
I handle friendship problems well.	4	3	2	1
I get along well with mom.	4	3	2	1
I get along well with dad.	4	3	2	1
I get along well with my brothers/sisters.	4	3	2	1
WHAT I THINK ABOUT ME and SCHOOL	4	3	2	1
I start my school work as soon as assigned.	4	3	2	1
I work hard and finish my school assignments.	4	3	2	1
I complete my homework.	4	3	2	1

Appendix A.9 Final Evaluation of Small Group Work – Blending Conceptual and Affective Standards

Name/ID _____ Teacher _____ Date _____

Final Evaluation of Small Group Work - Blending Conceptual and Affective Standards

PART ONE	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
The Group					
I enjoyed working in a small group.					
I got along well with the members of my group.					
I was able to express my thoughts and feelings in the group.					
I felt comfortable asking questions.					
I was able to take turns or pass in the group.					
I know the meaning of confidentiality.					
I would like to take part in another small group.					
I would recommend this group to my friends.					
I attended 7 or more of the 9 group sessions.					
Being in the small group was helpful.					
Goal Setting					
I know how to choose a goal.					
I know how to plan and take actions to meet my goal.					
I know at least 3 steps in the goal setting process.					
Goal setting can improve my work progress and improve my self-confidence.					
My Attitude and Behavior					
I like who I am.					
I understand that I am an important and special person.					
I know that I can make mistakes and still feel successful.					
I can handle it even if things are difficult or hard.					
I manage both my pleasant & unpleasant feelings well.					
Self Management and Organization					
I start my school work as soon as it is assigned.					
I work hard and finish my school assignments.					
I complete and submit my homework.					
I have learned that everything has its place.					
I have proper materials necessary to be successful in school.					
I doubt my strategies not my abilities.					
I am willing to try something new if my strategies are not working.					
I keep records of my homework assignments.					
I can rate myself on how I feel, what I am doing, and what is best for me.					
I stop, think and become positive when I am anxious about math.					
I focus and listen whenever the teacher is directing the class.					
Self-talk is important when I am feeling nervous or worried about an assignment					
I know how to practice seeing myself doing well in my academics.					
Academics					
I have my materials needed to do my work.					
I participate in class discussions.					
I behave in class and following the rules.					
Mathematics is a part of my everyday life.					
I solve life problems like finding a solution for a math problem.					
Making passing grades depends of me taking an active part.					
My success in school is important to my life as a grown-up.					

Appendix A.10 Final Group Formal Individual Student Interview

Student/ID_____Teacher_____Date _____

Final Small Group Formal Individual Student Interview

1. Being in the group I felt _____
2. The thing or things that I will remember the most _____
3. The thing or things that I liked the least _____
4. Since being in the group, I _____ math.
5. If asked to do this (being part of a group and discussing math and feelings)
again, I _____

6. Math and my feelings I have about it are _____
7. Being successful in math is _____
Because _____
8. Tell me more about some of the things that you've learned about math and
your feelings.
9. If I can improve anything about myself, I would
10. If I can change anything that has happened since becoming a member of the
group, I would
11. Anything else you would like to add

Appendix A.11 Affirmations and Self-Talk

Affirmations & Self-Talk

I always affirm the positive side of myself.

I don't doubt my abilities; I doubt my strategies and do something different!

Little by little, I am improving everyday!

KAIZEN!

That's not like me - I'm usually more

Breathe, Picture, Focus!

Breathe in 2, 3, 4, 5 - Out 2, 3, 4, 5, 6, 7, 8, 9, 10

Knowing me, I will be able to figure it out!

Knowing myself, I am sure that I will do fine!

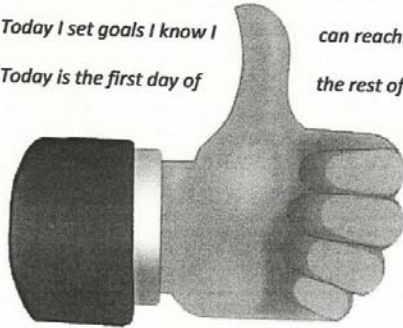
I am an intelligent person.

I enjoy learning in the classroom.

I feel at peace and view my life as the miracle that it is.

Today I set goals I know I can reach.

Today is the first day of the rest of my life.



The goals I set today for myself will help me in the days to come.

Today and everyday I visualize rainbows in the skies and a pot full of golden opportunities.

I am getting my education and putting it to good use.

I see myself smarter, wonderful and happy.

My future begins today!

I am healthy and I eat healthy.

I love all of me!

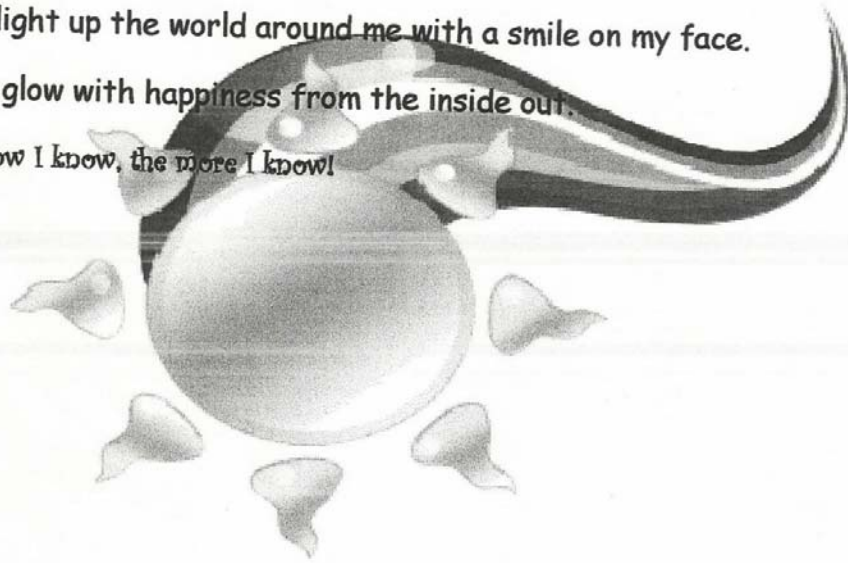
Education is a gift that I value.

Books are my friends.

I light up the world around me with a smile on my face.

I glow with happiness from the inside out.

Now I know, the more I know!



Appendix B Forms

Appendix B.1 Participant Information



Curtin University of Technology
Science and Mathematics Education Centre

Participant Information Sheet

School

SA 33157

Dear _____

My name is Alma J. Major Dean. I am currently completing a piece of research for my Doctor of Science Education at Curtin University of Technology.

Purpose of Research

I am investigating the research topic: "Using standards blending of cognitive and affective domains to promote conceptual change of at-risk 5th grade students"

Your Role

I am seeking your permission to conduct research by asking for students to take part in short diagnostic test(s) on mathematics and counseling standards that will complement their learning. Students involved will undertake a number of short tests. The results of the tests will be given back to the students after the completion of the test.

I may also ask for the students' participation in a short interview (group) about their attitudes and opinions about assessment in mathematics. Again this participation will be voluntary and of short duration (10-15 mins)

Consent to Participate

The students and your school's involvement in the research is entirely voluntary. You have the right to withdraw at any stage without it affecting your rights or my responsibilities. When you have signed the consent form I will assume that you have agreed to participate and allow me to use the students' data in this research.

Confidentiality

The information provided will be kept separate from the students' personal details, and only myself and my supervisor will only have access to this. The interview transcripts will not have student names or any other identifying information on them and in adherence to university policy, the interview tapes and transcribed information will be kept in a locked cabinet for at least five years, before a decision is made as to whether they should be destroyed.

Further Information

This research has been reviewed and given approval by Curtin University of Technology Human Research Ethics Committee (Approval Number XXXXXX). If you would like further information about the study, please feel free to contact me at 305 235 2442 or by email at ajmdean@dadeschools.net. Alternatively, you can contact my supervisor Dr. David Treagust on email at d.f.treagust@curtin.edu.au

Thank you very much for your involvement in this research.
Your participation is greatly appreciated.

Appendix B.2Principal Consent

PRINCIPAL'S CONSENT FORM

- I understand the purpose and procedures of the study.
- I have been provided with the participation information sheet.
- I understand that the procedure itself may not benefit me.
- I understand that my schools involvement is voluntary and I can withdraw at any time without problem.
- I understand that no personal identifying information will be used in any published materials.
- I understand that all information will be securely stored for at least 5 years before a decision is made as to whether it should be destroyed.
- I have been given the opportunity to ask questions about this research.
- I agree to allow students from my school to participate in the study outlined to me.

Appendix B.3 Student Information Sheet



Curtin University of Technology Science and Mathematics Education Centre

STUDENT Information Sheet

My name is Alma J. Major Dean. I am currently completing a piece of research for my Doctor of Science Education at Curtin University of Technology.

Purpose of Research

I am investigating the research topic: "Using standards blending of cognitive and affective domains to promote conceptual change of at-risk 5th grade students"

Your Role

I will conduct research by asking for you to take part in short diagnostic test on mathematics that will complement your learning. Your teachers and the College principal have already been contacted and have agreed in principle to the project. Students involved will undertake a number of short tests. The results of the tests will be given back to the you after the completion of the test. The tests will not in any way affect the your reported grades.

I may also ask for your participation in a short interview(group) about your attitudes and opinions about assessment in mathematics. Again this participation will be voluntary and of short duration (10-15 mins)

Consent to Participate

Your involvement in the research is entirely voluntary. You have the right to withdraw at any stage without it affecting your rights or my responsibilities. When you have signed the consent form I will assume that you have agreed to participate and allow me to use your data in this research.

Confidentiality

The information you provide will be kept separate from your personal details, and only myself and my supervisor will only have access to this. The interview transcript will not have your name or any other identifying information on it and in adherence to university policy, the interview tapes and transcribed information will be kept in a locked cabinet for at least five years, before a decision is made as to whether it should be destroyed.

Further Information

This research has been reviewed and given approval by Curtin University of Technology Human Research Ethics Committee. If you would like further information about the study, please feel free to contact me at 305 2365 2442 - or by email at ajmdean@dadeschools.net. Alternatively, you can contact my supervisor Dr. David Treagust at email d.f.treagust@curtin.edu.au

Thank you very much for your involvement in this research.
Your participation is greatly appreciated.

Appendix B.4 Student Contract

STUDENT CONTRACT

I, _____, have agreed to join this group. I understand that I

- _____ Must be honest and willing to make an improvement in my self.
- _____ Will attend the group each week.
- _____ Will share my ideas and feeling in group. I also have the right to pass.
- _____ Will be present at school every day unless I am sick.
- _____ Will do the homework assigned by the group.
- _____ Will manage my Self-Management Journal with care.
- _____ Will complete the requirements of the group.
- _____ Will follow all of the rules and guidelines of the group.
- _____ Will be responsible for any work I will need to make up in class.

On my honor, I sign this contract _____

This date _____

Witness _____



Appendix B.5 Parent Information - English



Curtin University of Technology Science and Mathematics Education Centre

PARENT Information Sheet

My name is Alma J. Major Dean, School Counselor for [redacted] y. I am currently completing a piece of research for my Doctor of Mathematics Education at Curtin University of Technology.

Purpose of Research

I am investigating the research topic: "Using standards blending of cognitive and affective domains to promote conceptual change of at-risk 5th grade students"

Your Role

I will conduct research by asking for your child to take part in short diagnostic test on mathematics that will complement their learning. Your child's teachers and the school's principal have already been contacted and have agreed in principle to the project. Students involved will undertake a number of short tests. The results of the tests will be given back to the students after the completion of the test. The tests will not in any way affect the students reported grades.

I may also ask for your child's participation in a short interview (group) about their attitudes and opinions about assessment in mathematics. Again this participation will be voluntary and of short duration (10-15 mins.)

Consent to Participate

Your child's involvement in the research is entirely voluntary. You have the right to withdraw at any stage without it affecting your rights or my responsibilities. When you have signed the consent form I will assume that you have agreed to participate and allow me to use your data in this research.

Confidentiality

The information you provide will be kept separate from your personal details, and only myself and my supervisor will only have access to this. The interview transcript will not have your name or any other identifying information on it and in adherence to university policy, the interview tapes and transcribed information will be kept in a locked cabinet for at least five years, before a decision is made as to whether it should be destroyed.

Further Information

This research has been reviewed and given approval by Curtin University of Technology Human Research Ethics Committee. If you would like further information about the study, please feel free to contact me at 3050235 2442- or by email at ajmdean@dadeschools.net. Alternatively, you can contact my supervisor Dr. David Treagust at dftreagust@au.edu.

Thank you very much for your involvement in this research.
Your participation is greatly appreciated.

Parent Information – Spanish

PADRE Hoja de Información

Mi nombre es Alma J. Mayor Dean, consejero de la Escuela de
Actualmente estoy terminando un trabajo de investigación para mi Doctor en Educación
Matemática en la Universidad Curtin de Tecnología.

Objetivo de la investigación

Estoy investigando el tema de investigación: "El uso de normas de fusión de los
dominios cognitivos y afectivos para promover el cambio conceptual de los estudiantes
en riesgo de 5 ° grado"

Su papel

Voy a realizar una investigación solicitando a su hijo a participar en la prueba de
diagnóstico a corto en las matemáticas que complementarán su aprendizaje. Los
maestros de su hijo y director de la escuela ya han sido contactados y han acordado en
principio con el proyecto. Los estudiantes que participan llevará a cabo una serie de
pruebas cortas. Los resultados de las pruebas serán devueltos a los estudiantes
después de la finalización de la prueba. Las pruebas no afectará en modo alguno a los
estudiantes reportaron grados.

También podrá solicitar la participación de su hijo en una breve entrevista (grupo) sobre
sus actitudes y opiniones acerca de la evaluación en matemáticas. Una vez más esta
participación será voluntaria y de corta duración (10-15 min.)

Consentimiento para Participar

la participación de su hijo en la investigación es totalmente voluntaria. Usted tiene el
derecho de retirar en cualquier momento sin que afecte sus derechos o mis
responsabilidades. Una vez que haya firmado el formulario de consentimiento que se
supone que han aceptado participar y que me permita utilizar sus datos en esta
investigación.

Confidencialidad

La información que usted proporcione serán separados de sus datos personales, y sólo
yo y mi supervisor sólo tendrá acceso a este. La transcripción de la entrevista no tendrá
su nombre o cualquier otra información de identificación en él y en la adhesión a la
política de la universidad, las cintas de entrevistas y la información transcrita se
mantendrá en un gabinete cerrado durante al menos cinco años, antes de tomar una
decisión sobre si debe ser destruido.

Más información

Esta investigación ha sido revisado y dado su aprobación por la Universidad Curtin de
Tecnología de Investigación en Seres Humanos del Comité de Ética Si desea más
información sobre el estudio, por favor no dude en ponerse en contacto conmigo en el
3050235 2442 - o por correo electrónico a ajmdean@dadeschools.net.
Alternativamente, usted puede contactar a mi supervisor el Dr. David Treagust en
dftreagust@au.edu.

Muchas gracias por su participación en esta investigación.
Su participación es muy apreciada.

Appendix B.6 Parent Consent Form - English



PARENT CONSENT FORM

-
- I understand the purpose and procedures of the study.
 - I have been provided with the participation information sheet.
 - I understand that the procedure itself may not benefit my child.
 - I understand that my and my child's involvement is voluntary and I can withdraw at any time without problem.
 - I understand that no personal identifying information like my name and address will be used in any published materials.
 - I understand that all information will be securely stored for at least 5 years before a decision is made as to whether it should be destroyed.
 - I have been given the opportunity to ask questions about this research.
 - I agree to allow my child to participate in the study outlined to me.
-

Name: _____

Student Name: _____

Signature: _____

Date: _____

Parent Consent Form – Spanish

FORMULARIO DE CONSENTIMIENTO DE LOS PADRES

- Entiendo que el propósito y los procedimientos del estudio.
 - Se me ha proporcionado con la hoja de información de participación.
 - Yo entiendo que el procedimiento en sí puede no beneficiar a mi hijo.
 - Entiendo que mi participación y mi hijo es voluntaria y puede retirarse en cualquier momento sin problema.
 - Entiendo que ninguna información de identificación personal como mi nombre y la dirección se utilizará en todos los materiales publicados.
 - Entiendo que toda la información se almacena de forma segura durante al menos 5 años antes de que se tome una decisión sobre si debe ser destruido.
 - Se me ha dado la oportunidad de hacer preguntas sobre esta investigación.
 - Estoy de acuerdo en permitir que mi hijo participe en el estudio se indica a mí.
-

Nombre: _____

Nombre del Estudiante : _____

Firma: _____

Fecha: _____

Tips for Studying and doing Homework:

1. **Set a schedule:** Set a time to do homework everyday and stick to it! Plan when you are going to do homework when you get home. Doing your homework before you turn on the T.V. is a good idea! Do what is best for you and study when you will be able to THINK.



2. Have a study area:

Study in an area that is quiet and comfortable. Make sure that there is plenty of light, and that no one will bother you while you are studying.

3. Get Organized:

Have basic things that you need like pencils, pencil sharpener, paper and school books. Make a calendar for when school work is due. Check your backpack every day to make sure that you did not forget anything. Make sure to let your parents know what needs to be turned in to the teacher.



4. **Do the work yourself.** It is important to do all of your work yourself. You will learn better. Get ready to study and do the work. Prepare for success. If you need help do not be afraid to ask. If you ask you may be able to understand your work better, and then you will do better. After you are done with your homework, check your work again and make sure you have not made any mistakes. If you have, just correct them! Always try to do your best!

Meeting Deadlines:

Lashonda and Maria are good friends and do lots of activities together. They have been given a project at school to do together. They agreed to each do half of the work. The project is due in 2 days. Maria loves to ride her bike after school. She rides until it is time to get ready for bed. On the day the project is due, Maria realizes that she did not do her half of the work.



Questions:

1. Why didn't Maria meet her deadline?
2. What will happen to Lashonda since Maria did not do her work?
3. What will happen since the project is not finished?
4. How would you feel if this happened to you?
5. What should Maria do?
6. Why are deadlines important?

Did they do a good job?

Do you have good study habits?

To be a good student you need good habits at home and at school. If you have a good attitude about schoolwork you will learn better and do better in school. Remember—

ATTITUDE IS EVERYTHING!

Have a good attitude!



Improve your study habits:

Do you study at school and at home well? Read these important tips carefully to improve your study habits. You are not born with study habits. You will need to learn them early in school to have success.

Reading every day will help you in school. Do you have books at home that you can read each night? You can either read them by yourself or have someone help you, even your older brother or sister! This will help your study habits and you will do better in school.



READ!

Go to your school library and check out some good books!

Develop Good Listening Skills

Listening is very important at all times. You must listen not only in the classroom but at home as well. You can learn so much by listening to others.



1. Why is it important to listen when teachers give you instructions?
2. Will you understand how to do your work if you do not listen? Will you get good grades if you do not listen?
3. What should you do if another student is talking to you?
4. What do you do if you do not understand what the teacher is talking about?

Please do not talk while the teacher is talking, you will miss important information.

Listen to your teacher.

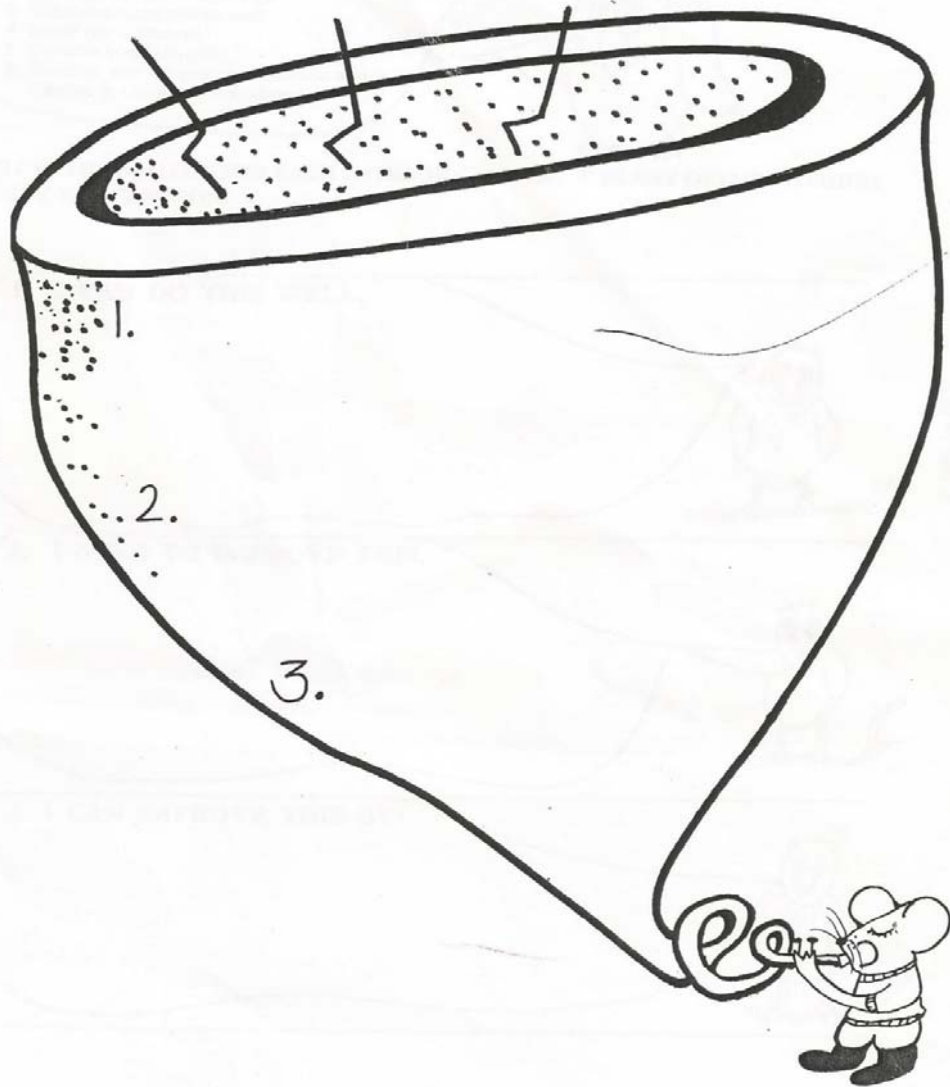
C.2 Toot Your Own Horn

Lesson 15

Name _____ Date _____

TOOT YOUR OWN HORN !

Write or draw three things you can do well at home, school, or play. Be able to tell why.



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C.3 Knowing Myself

Lesson 17

Name _____ Date _____

KNOWING MYSELF

Skill Steps:

1. Think about your strengths.
2. Think about your weaknesses.
3. Select one thing you do well.
4. Select one weakness.
5. Describe your strengths.
6. Describe one of your weaknesses and a solution to conquer the weakness.



FILL IN THE BALLONS FOR EACH CATEGORY AND DRAW IN ANY DETAILS TO HIGHLIGHT THE CARTOON.

1. I CAN DO THIS WELL.

A large, horizontal, teardrop-shaped balloon with a wavy bottom edge, intended for drawing details related to the first category.

2. I NEED TO IMPROVE THIS.

A large, horizontal, teardrop-shaped balloon with a wavy bottom edge, intended for drawing details related to the second category.

3. I CAN IMPROVE THIS BY:

A large, horizontal, teardrop-shaped balloon with a wavy bottom edge, intended for drawing details related to the third category.

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C.4 Things I Do Well

Lesson 17

Name _____ Date _____

THINGS I DO WELL

THINGS I DO WELL (as told by a family member and a friend)

.....

1. _____ does the following well:
(Name)

(Signature of family member)

.....

2. _____ does the following well:
(Name)

(Signature of friend)

.....

Return the sheet by this date: _____

C.5 Things I Need to Improve

Lesson 18

Name _____ Date _____

THINGS I NEED TO IMPROVE

1. _____ needs to improve the following:
(Name)

(Signature of parent)

.....

2. _____ needs to improve the following:
(Name)

(Signature of friend)

Return the sheet by this date: _____

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